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# THE CHEMIST AND DRUGGIST

ESTABLISHED 1859

THE WEEKLY NEWSPAPER FOR PHARMACY  
and all sections of the drug, pharmaceutical,  
fine chemical, cosmetic, and allied industries.

*Official organ of the Pharmaceutical Society of Ireland  
and of the Pharmaceutical Society of Northern Ireland*

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# The CHEMIST AND DRUGGIST

Volume 184

JULY 10, 1965

No. 4456

## National Health Service

### NEW GROUP OF ADVISERS

THE Minister of Health (Mr. Kenneth Robinson) announced on July 5 the names of nine people who have agreed to constitute a small informal group to advise him on the long-term development of the National Health Service and the relationship between its component parts.

The members of the group are: Dr. B. Abel-Smith (London School of Economics and Political Science); Professor W. J. H. Butterfield (Guy's Hospital Medical School); Sir Edward Collingwood (chairman, Central Health Services Council and Newcastle Regional Hospital Board); Mr. G. C. Godber (Clerk of Shropshire County Council); Mr. R. Huws Jones (principal, National Institute for Social Work Training); Sir Peter Medawar (director, National Institute for Medical Research); Professor J. N. Morris (social medicine research unit, Medical Research Council); Professor M. Roth (Newcastle University); Miss M. Scott Wright (matron, Middlesex Hospital). The Ministry of Health states that the formation of the group will not prejudice the use of the existing advisory machinery already at the Minister's disposal. Members of the group are to advise the Minister on a personal and informal basis and he expects that they will tender advice both collectively and individually.

pensions has been concentrated on the study of aqueous bentonite suspensions. Suspensions containing up to 9 per cent. solids by weight have so far been studied and have been found to show thixotropic behaviour and to possess yield stresses. Flow characteristics of the suspensions through pipelines and pipe-fittings are also being studied.

### The "Greater Enemy"

DRUGS AND DOCTORS OR DISEASE?

"I SOMETIMES think, listening to some of the critics, that they consider drugs and doctors to be more potent enemies of the public's health than the diseases they cure," said Mr. P. V. Colebrook (chairman and managing director, Pfizer, Ltd.), at a dinner given by Edinburgh University for celebrating the opening of the Pfizer Foundation on July 2. Mr. Colebrook thought that health workers had tended to dismiss much of the criticism in the past because it had been so ill-informed,

nevertheless he thought it was incumbent upon all, doctors, industrialists and pharmacists alike to recognise their mutual interests and energetically to correct such misleading impressions when they came their way. No members of "The Health Team," as it was sometimes called, could work in isolation: we are all members one of another.

### Civil Estimates

MORE REQUIRED FOR DOCTORS' FEES

SUPPLEMENTARY Estimates (H.M. Stationery Office, price 4s. 6d.), reveal that an extra £5,218,000 is required for the National Health Service to meet "payments under arrangements with medical practitioners" in England and Wales. £590,000 more is also required for general practitioner services in Scotland. The increased provisions are in connection with the increased capitation and temporary residents' fees.

### Guernsey Parliament

DANGEROUS DRUG LAW TO BE REVISED

GUERNSEY'S parliament—the States of Deliberation—agreed without debate on June 30 that existing local legislation on dangerous drugs should be repealed and replaced by legislation along the lines of the United Kingdom Dangerous Drugs Acts of 1951 and 1964. Her Majesty's Procureur (Mr. J. H. Loveridge)—the island's principal

## Properties of Powders

WORK AT WARREN SPRING LABORATORY

WORK carried out at the Warren Spring Laboratory that should contribute to an improved understanding of the flow properties of powders is described in the report of the Laboratory for 1964 published on June 24 (H.M. Stationery Office, price 5s.). It has been found possible to designate a powder by its shear index and cohesion, for any bulk density. For a hypothetically free-flowing powder an equation for shear stress of the powder, derived from experimental measurements on a number of cohesive powders, has been found to reduce to a form analogous to the friction formula for two solid surfaces in contact. Investigations into the blending of dry materials are being undertaken at the laboratory and where possible co-operative research is being carried out with industry in order to include industrial scales of blending and industrial blends in the results obtained. Attempts are also being made to develop a mathematical/statistical definition of degree of mixedness. Research into the fluid mechanics of sus-



ROYAL OPENING: The Duke of Edinburgh declaring open the Pfizer Foundation, a £100,000 centre for Edinburgh's post-graduate medical students, at a ceremony on July 2. Funds totalling £250,000 are being made available over a 25-year period by Pfizer, Ltd., to finance the cost of the centre for international symposia conferences and seminars on medicine. On the Duke's left is Professor Michael Swann (acting principal, Edinburgh University) and Dr. James Robertson Justice (rector, Edinburgh University).



law officer—described the step as a "very necessary measure." Present Guernsey legislation on the subject is contained in two laws of 1931 and 1932 both in French. They were based on legislation in force in the United Kingdom at that time. They had been amended and extended by a considerable amount of subordinate legislation. As Guernsey adopted English as its official language after the 1939-45 war, part of its law is in French and part in English. In his report to the States, Conseiller E. D. Collas (president of the Board of Administration), pointed out that the new legislation was necessary to bring into effect in the Bailiwick of Guernsey (which also covers Alderney and Sark) the provisions of the 1961 Single Convention on Narcotic

Drugs and that the Board of Administration considered that the opportunity should be taken to bring the whole of the local dangerous drugs legislation into line with the United Kingdom legislation. It now remains for the new law to be drafted.

## IRISH NEWS

### THE REPUBLIC

#### Tried to Pass Blame

TRADER ON ILLEGAL SALE CHARGE

DEFENDING solicitor for Patrick Curley, general trader, argued at Eyre, co. Galway, court recently, that articles alleged to have been sold by his client had been supplied by a member of the

pharmaceutical profession and that that was the person who should have been prosecuted. Curley had been summoned by the Pharmaceutical Society of Ireland under Section 30 of the Pharmacy Act for keeping open shop for retailing poison, not being qualified to do so, and for selling sulphadimidine in scour tablets without complying with Section 2 of the Poisons' Act, 1870. Mr. J. Gaynor, solicitor for the Society, pointed out that no evidence whatsoever had been submitted that the articles had been supplied by a pharmaceutical chemist. He urged that the defendant was merely trying to pass the blame for the offence on to the supplier of the articles despite the fact that he had been quite prepared to take supply of the goods from whatever source offered. The justice applied the Probation Act and ordered Curley to pay £10 12s. costs and expenses.

## HOSPITAL POINTS SCHEME

### New basis for assessment

A NEW system of calculating points for determining the categories of hospitals has been agreed by Committee C of the Pharmaceutical Whitley Council (P.H. Circular No. 34). Calculations are to be based on staffed beds and not on average occupied beds as previously. All out-patient attendances will be taken into consideration in the calculations and extra points are now given in respect of responsibilities for more than one hospital. The Minister of Health has agreed that a general re-assessment of points should be made under the scheme, the effective date of re-assessment to be December 1, 1964, and the period of assessment the year January 1 to December 31, 1964. Points values of the categories are now as follows:

CATEGORY	POINTS
I	1-5
II	6-10
III	11-25
IV	26-40
V	40 and over

Points are to be calculated according to the following formulae:—

TYPE OF HOSPITAL	STAFFED BEDS	OUT-PATIENT ATTENDANCES
(OR BEDS) <sup>1</sup>	(to produce one point)	
Chronic and geriatric	125	20,000
Orthopaedic	45	
Subnormal and severely subnormal	200	
Mentally ill	120	10,000
T.B.	75	
Isolation	90	(part 2) <sup>2</sup>
Part III	360	20,000
Other (including non-T.B. chest)	30	(part 3) <sup>2</sup>

<sup>1</sup> Hospitals are treated as being of a particular type when 60 per cent. or more staffed beds are of that type, otherwise points are calculated separately for each type of bed.

<sup>2</sup> Parts 2 and 3 refer to those parts of the S.H.3 returns for England and Wales. In Scotland, for "part 2" is to be read Part 1 of form H.S.10 with the exception of items 29, 33, 34 and 35; the latter items are to be read for "part 3."

In mixed hospitals points from part 2 out-patients are to be calculated separately for the different types shown in the table, according to the formula; the part 3 out-patients' total is to be divided by 20,000. Where a chief pharmacist is responsible for more than one hospital two points are given for each additional hospital of thirty

staffed beds and over, and one point for each extra hospital with fewer than thirty staffed beds, after aggregating the points for each hospital calculated as in the table.

P.H. Circular No. 35 gives details of the new agreement on salary scales reached by the Committee on May 3 (see C. & D., May 8, p. 461). Annual allowances for group pharmacists are now as follows:—

TOTAL NUMBER OF POINTS	ALLOWANCE
Up to 30	£65
31 to 55	£130
56 to 80	£195
81 and over	£260

Allowances in respect of special duties at nominated teaching hospitals have been increased (i) chief pharmacists from £175 to £200; from £260 to £295 and from £350 to £395; (ii) deputy chief pharmacists now receive £60 where the chief pharmacist's allowance is £200; £90 if the chief pharmacist's allowance is £295 and £120 if the chief pharmacist's allowance is £395. Adjustments have been made in the salary levels at which the leave allowances come into force.

Part-time pharmacists working six sessions (i.e., twenty-four hours) or less per week are to receive fifty-one shillings and twopence per session of four hours or sixty-three shillings and threepence when in sole charge at a hospital that is not included in the points calculation for determining the salary of a chief pharmacist elsewhere.

Weekly rates for locum tenens pharmacists in hospitals are now:

Locum tenens ...	£23 12s. 6d.
Locum tenens in charge,	
I	£26 5s. 0d.
II	£28 7s. 0d.
III	£31 10s. 0d.

## IRISH BREVITIES

### THE NORTH

PRESCRIPTIONS dispensed in Northern Ireland during March numbered 813,230 (550,864 forms). Total cost was £466,797 (£466,721 net) making an average of 137.76d. per prescription (137.74d. net).

### THE REPUBLIC

THE Minister for Health (Mr. O'Malley) said in the *Dail* on June 30 that he would consider sympathetically before next year, a *Fine Gael* suggestion that certain medical expenses should rank as an allowance for income tax purposes.

A DEPUTATION from the Pharmaceutical Society of Ireland was received by the Minister for Health (Mr. O'Malley) and officials of his Department on June 18. A joint deputation from the Society and the Irish Drug Association has subsequently held discussions with officials of the Department and it is understood that further talks will take place in the near future.

THE annual meeting of the Irish Drug Association, which was to have been held on June 28, has been postponed until July 12 (8.30 p.m., Jury's Hotel, Dublin). Eight candidates are standing for election to the council of the Association. They are:—the three outgoing candidates (Messrs. P. J. Kilgarraff, Tuam, co. Galway; P. McAuliffe, Dublin; G. C. O'Neill, Blackrock, co. Dublin) and Messrs. J. P. Burke, Dublin; E. D. Leavy, Dundalk, co. Louth; R. C. O'Higgins, Dublin; D. O'Sullivan, Dublin, and A. Thornton, Enniscorthy, co. Wexford.



**NORTH MEETS SOUTH:** Representatives of the Irish Drug Association and the Ulster Chemists' Association photographed together at a joint meeting held in Belfast, recently.



## NEWS IN BRIEF

THE National Research Development Corporation, 66 Victoria Street, London, S.W.1, has published a bulletin entitled "26 Inventions for Industry," listing the inventions the Corporation has available for development under licence and including a number of scientific instruments.

A NEW rheumatology research department for the Middlesex Hospital Medical School, established with a grant of £50,000 from the Arthritis and Rheumatism Council and £34,740 from the Nuffield Foundation, was opened on July 8 by Lord Cobbold (chairman of the hospital's Board of Governors).

A BROCHURE has been produced by the British National Export Council, 27 Northumberland Avenue, London, W.C.2, giving the constitution and membership of the council and its area bodies. In all, some 165 businessmen are now helping the council in a voluntary capacity.

AT the annual meeting of the Proprietary Association of Great Britain on June 17, the officers were re-elected to their former positions:—Mr. S. W. Day, *Chairman*; Messrs. J. W. Jamieson and C. D. W. Stafford, *Vice-chairmen*; and Mr. T. D. C. Corder, *Treasurer*. The twelve members of the executive committee were also re-elected.

A GRANT of £60,000 from the Wellcome Trust will enable the department of medicine of the University of Newcastle upon Tyne to build a new laboratory at the Royal Victoria Infirmary, Newcastle, to further research into a number of medical problems, including thyroid disease, diabetes and peptic ulceration. The remaining funds required for the building have been provided by the University of Newcastle (£10,000) and the research fund of the Royal Victoria Infirmary (£10,000).

THE Lothians and Peebles Executive Council, meeting in Edinburgh, on June 22, agreed to adopt the proposed drug testing scheme recently circulated by the Scottish Home and Health Department (*C. & D.*, June 19, p. 625). The council agreed that an inspector should undertake a minimum of twenty visits to pharmacies each year, which would enable all the pharmacies in the area to be inspected every third year, and that the scheme should come into operation on July 1 "or as soon thereafter as the Secretary of State for Scotland gives his assent."

## SPORT

### Golf

SOUTH LONDON AND SURREY PHARMACISTS' GOLFING SOCIETY. Thirty-four members attended the meeting held at Tandridge golf club on June 30. A Stableford competition was played for the *Banstead bowl and Seniors' prize* and a medal competition for the *Phil Thorp putter*. Results: *Banstead bowl*, A. F. Reary, Croham Hurst, 37 points. *Phil Thorp putter*, N. A. Smith, Cuddington, 69 net. *Seniors' prize*, G. G. Jamieson, Croham Hurst, 36 points. *Scratch to fourteen handicap prize*, R. E. Hedges, Langley Park, 36 points. *Fifteen and over handicap prize*, H. V. Powell, Woodcote Park, 34 points. *Best score on first nine holes*, A. Wilson, Croham Hurst. *Best score on last nine holes*, F. R. Jamieson, Woodcote Park.

# TOPICAL REFLECTIONS

By Xrayser

## *Planning for the future*

At the annual meeting of pharmacists resident in Scotland held in Edinburgh in 1964, Dr. G. H. Macmorran presented his audience with an analysis of the distribution of pharmacies in that country. This year's annual meeting, the audience heard Dr. J. C. Parkinson address himself to the task of attempting a solution of the problems which Dr. Macmorran's researches had brought to light (*C. & D.*, July 3, pp. 13-14). During his address, the deputy secretary of the Pharmaceutical Society put forward what might be regarded as the ideal single unit in pharmacy, based on population, volume of dispensing, and turnover, having regard at the same time to geographical circumstances. Such conditions may arise of themselves, but generally they would necessitate careful planning, supported by statutory powers of enforcement. Dr. Parkinson suggested measures under four headings which he felt would encourage a more equitable distribution of pharmacies. One was to encourage amalgamation into groups in urban areas, telescoping six or seven existing businesses into four. That would call for measures to ensure that there was protection against incomers. The second point was that there should be a prohibition of the opening of new pharmacies in regions already more than adequately supplied. That, also, would call for measures of control. But in areas where there was a high population ratio to the number of existing pharmacies, Dr. Parkinson suggested that the law of supply and demand could be expected to work. It is difficult to visualise control operating in some areas, leaving others with complete freedom. That seems to be a weakness in the suggested scheme. In areas other than those in the three categories mentioned, the speaker said the criteria of distance and population could be applied.

## *Limitation*

To deal with the situation on the basis of population and distance, Dr. Parkinson said that it was possible that the Society might take powers to "inhibit the registration of premises unless they were capable of giving a full service to a population of 4,000—i.e. the 'gamblers' would be cut out." I presume that the speaker meant that the Society might *seek* powers, for, as he said in answer to a question, legislation would be necessary to enable the Society to prohibit the opening of new pharmacies and, at present, the Registrar had no authority to refuse the registration of premises as such. But I hope the matter will not be allowed to rest where it is. The points raised by Dr. Parkinson must be carefully considered and, if acceptable as a means of bringing order out of a completely unplanned situation, legislation should be sought to secure their implementation. In seeking legislation it will, of course, be necessary to prove that the steps proposed are in the public interest. The Government would be bound to listen to proposals which sought to provide a complete pharmaceutical service and, at the same time, make the best use of pharmaceutical manpower in the creation of which large sums of public money have been invested.

## *Manpower*

I took the liberty, following an earlier address by Dr. Parkinson, of doubting some of his conclusions as to the possible strength of the pharmaceutical register in 1982, for so many factors are involved. The estimate of the report on pharmaceutical manpower had forecast a decline in numbers over the next twenty years, but with the steady increase in intake to schools since the report was published, Dr. Parkinson felt that there would be more pharmacists in 1982 than today. He himself mentioned a possible factor when he stated that the broad scientific background of the present-day pharmacist could be applied in many walks of life outside pharmacy. "Is it realistic," he asked, "to expect them to remain on the register?" There may be, that seems to suggest, a difference between intake to schools and the ultimate strength of the register.



# Increasing Use of Cosmetics

## NEW SURVEY SHOWS GROWTH RATE SINCE 1955

THE average woman is using an increasingly wide range of cosmetics. The use of hair and hand preparations and face make-up, including hair colourants, nail varnish and eye shadow has increased appreciably over the past two years. Those findings emerge from the latest of a series of surveys on cosmetics carried out for *Woman* magazine by Odhams Press research division, for which 4,145 women aged from fifteen to sixty-four were interviewed between July 27 and September 12, 1964. The report "*Woman and the National Market — Cosmetics*" (Odhams Press, £5 5s.) was published on July 8.

The following table showing the percentage of women using various cosmetics indicates how their use has grown since 1955 and, specifically, over the past two years:

	1964	1962	1955
Liquid or lotion shampoo	74	70	50
Cream shampoo	25	20	9
Hair colourants	23	16	7
Hair conditioner	9	7	8
Nail varnish	36	31	25
Nail varnish remover	32	28	20
Barrier cream	10	7	7
Liquid make-up base	23	19	8
Eye shadow	31	26	5
Mascara	31	27	12
Cleansing cream	49	44	38
Cleansing lotion	13	11	6
Skin food	36	33	25

The use of deodorants and anti-perspirants, not included in the 1955 survey, has also increased appreciably during the years 1962-64. The percentage using them went up to 58 (from 48). Products which have consolidated gains made since 1955 and whose latest use has remained constant at the 1962 figure are lipstick 85 per cent. (76 per cent. in 1955), eyebrow pencil, 24 per cent. (8 per cent. in 1955), and bleaching lotion, 4 per cent. (2 per cent. in 1955). Exceptions to the overall growth trend are: Powder shampoo, setting lotion, foundation and vanishing cream and rouge. There have been only small fluctuations over the whole period in the use of hand cream and lotion, now used by 79 per cent. and of all face powder now used by 80 per cent.

### Most Widely Used

On its first inclusion in the survey, talcum powder—used by ninety-two in every 100 women—emerges as the most widely used cosmetic article. Three in ten of the talcum powder users had been given the powder they were using as a present, and nearly half of the bottles of fragrances (toilet water, cologne or perfume) in use were also gifts. Nearly three in four of all women use fragrances.

In establishing where women bought their cosmetics, the survey took the type of shop at which they made their last purchase. On that basis, pharmacies emerged as the major retail outlet for every kind of preparation. Among those most extensively used, the following percentages of purchases were

shown to be made at chemists: Skin food, 73 per cent.; cleansing cream, foundation and vanishing cream, compressed face powder, 72 per cent.; deodorants and anti-perspirants, 70 per cent.; nail varnish remover, 66 per cent.; lipstick and nail varnish, 65 per cent.; aerosol hair spray, 61 per cent.; hand cream and lotion, 60 per cent.; mascara, 59 per cent.; eye shadow, 56 per cent.

### Liquid Shampoos

Three out of four women use liquid or lotion shampoos; 22 per cent. of the purchases are made at grocers or supermarkets, compared with 18 per cent. in 1962. The grocery trade also handles 15 per cent. of cream shampoo purchases, being the second highest retail outlet for these types of wet shampoo. Grocers are also having a bigger share in the expanding market for the newer kinds of hair spray. Compared with 4 per cent. of the combined purchases for aerosol and squeeze pack sprays in 1962, those for the squeeze pack have risen to 13 per cent. and for the aerosol type to 7 per cent. Women are going to bazaars (e.g., Woolworths) for one-fifth of the eye preparations they buy. Among other products bought at bazaars are 24 per cent. of rouge, 19 per cent. of nail varnish remover, 17 per cent. of nail varnish, and 14 per cent. of setting lotion.

Women are putting still more emphasis on making up their eyes. The upward trend in use for eye shadow, mascara, and eye liner continues, but eyebrow pencil usage has remained

stationary at the 1962 figure of 24 per cent.

Twenty-three per cent. of women use liquid make-up base against 8 per cent. in 1955 and 13 per cent. favour all-in-one make-up compared with 6 per cent. in 1962. Lipstick is used by 97 per cent. of women between twenty-five and thirty-four years of age, by 77 per cent. of girls fifteen to eighteen years old.

The report says that more attention is given to keeping hands supple and the fingernails strong as well as colourful.

More than one in three women use nail varnish and 32 per cent. varnish remover. One woman in ten now uses barrier cream (7 per cent. in 1962).

Liquid or lotion shampoos continue to grow in popularity, their use going up to 74 per cent. in 1964 from 50 per cent. in 1955. One woman in four now uses cream shampoo, nearly three times the 1955 percentage. Of all users of wet shampoos, a third choose the medicated kind. Only 3 per cent. use a powder shampoo against 31 per cent. in 1955. The popularity of aerosol type hair sprays now equals that once enjoyed by setting lotion. They are applied by three women in ten, while nearly two in ten go for squeeze pack hair sprays.

Home perms continue their downward trend since 1955, usage declining from 29 per cent. of women to the latest figure of 19 per cent., which is the lowest over the whole nine-year period. However, the average number of home perms per user, now 1.71, shows little change.

## REPORT ON SICK-LEAVE STATISTICS

### More spells from work but of shorter duration

ALTHOUGH there have been dramatic reductions in some diseases, people are taking sick-leave more frequently than before but the spells are of shorter duration. That is a finding of the report "Work Lost Through Sickness" published by the Office of Health Economics, 62 Brompton Road, London, S.W.3 (price 2s.).

Introducing the report, the office's director (Mr. G. Teeling-Smith), said that the finding might at first be unexpected but on reflection it was not so surprising. First, studies into sickness absence in certain industries had shown that the number of days lost tended to be related to what could be called "employment status." In London Transport, for example, salaried staff had more short sickness absences than wage earning employees. That was probably because the former were paid during sickness, while the wage earners were entitled only to their sickness benefit and then only if they were off more than three days. In addition, there was probably a specific "middle class" effect related to the higher all-round standards which people expected as they became affluent. The hospital beds previously needed for patients with tuberculosis had not fallen because

"new types of patient with new types of illness" had been admitted.

That could seem discouraging, because "it could mean that over the broad field of illness we were simply running faster and faster in order to stay still." That gloomy interpretation of the figures was rejected at the Office of Health Economics, said Mr. Teeling-Smith.

The report quotes the reduction in the death rate for men aged twenty-five—thirty-four from about one in 600 in 1949 to about one in 1,000 in 1962, but points out that not all those who benefit from the reduced mortality will be well enough to work and some would need continuing medical care. The alternative was their premature death.

A second factor contributing to the persistence of sickness absence is a more obvious manifestation of the rising standards of health. The report says people who previously ignored or did not appreciate the nature of their ill-health now expect treatment for it. Many who would previously have "struggled along at work, for example, with a raging cold, or agonising rheumatic pains, now stay away from work while they are being treated."



That links in with the third factor. The majority of employees now continue to get their full pay made up by their employees during short spells of sickness absence. The report believes that it is primarily the combination of those circumstances which has resulted in a 27 per cent. increase in the number of spells of sickness absence over the past decade.

As the number of absences from work due to illness has risen, however, their duration has fallen. The total number of days lost has remained more or less constant at about 300 million per year; that is about fourteen working days lost for each person covered by the insurance scheme. The cost of sickness benefit payments is about £160 millions a year. (The National

Health Service costs about six times as much.) The report points out that a small proportion of chronic sick and the elderly are responsible for a large proportion of the total absences and total cost. Skin diseases, rheumatism and ulcers now cause less absence than before; but sprains, "slipped discs," nervous diseases, diabetes and heart disease are responsible for more.

National Health Service in 1964

MORE PRESCRIPTIONS AND HIGHER COSTS IN ENGLAND—WALES

THE total number of prescriptions dispensed in England and Wales during 1964 was 209·375 millions, an increase of 3·9 millions over the previous year, states the annual report of the Ministry of Health, for the year ended December 31, 1964 (Cmnd. 2688) (H.M. Stationery Office, 16s. 6d.). The ingredient cost also rose from 75d. in 1963 to 83d. in 1964. About 71 per cent. of all prescriptions were for proprietary drugs, an increase of 3 per cent. over the previous year. There was a greater volume of prescribing in the therapeutic groups containing the newer, and usually the more expensive drugs. The total ingredient cost rose from £65 millions in 1963 to £72 millions in 1964. The percentage of the total net ingredient cost accounted for in 1964 by proprietary and non-proprietary drugs were 90 per cent. and 6 per cent. respectively.

Prescriptions dispensed in Wales in 1964 totalled 14,186,067 compared with 13,583,171 in 1963. The cost per prescription was 10s. 6½d. compared with 10s. 10d. in 1963. Prescriptions in Wales followed the general pattern, reaching a peak of 1,332,476 in January and maintaining a fairly high level through to April.

In a chapter dealing with the remuneration of chemists, reference is made to the agreement that chemists should be paid a professional fee for each prescription dispensed and an on-cost allowance. "It was also agreed that 0·1 penny per prescription (about £85,000 in total) should be set aside to

provide additional payments to small chemists providing an essential service in rural areas. The methods of distributing this sum," states the report, "were under discussion at the end of the year." The report also mentions the revision of the voluntary price legislation scheme that came into operation on July 1, 1964.

Committee on Safety of Drugs

The Committee on Safety of Drugs (chairman, Sir Derek Dunlop) started its consideration of new drugs on July 1, 1964. "Out of 600 submissions by manufacturers of proposals to market new drugs, or submit them to clinical trial, the Committee indicated in 386 cases that it had no objection to the proposals and in 15 cases that it could not agree. At the end of the year, further information was awaited on 99 submissions which had been referred back to the applicants. 68 were under consideration and 32 had been withdrawn."

A short note under the heading "Review of Medicines Legislation" refers to the fact that during August 1964, "the principal interests concerned were invited to comment on proposals which had been worked out and their replies were being studied at the end of the year."

The net capital expenditure on the hospital service during 1963/1964 amounted to £56,320, 384 (£35,681,622 in 1962/

1963); Revenue expenditure totalled £520,389,204 (£485,961,700 in 1962/1963); in which the main items were salaries and wages—medical and dental, £530,282; nursing, £137,620,023 and "others" £154,264,613. The expenditure on drugs amounted to £14,589,433 (£13,214,430) and on dressings, £3,741,995 (£3,678,863).

The estimated expenditure on the Health and Welfare services in England and Wales for the 1964-1965 financial year is given as £1,128 millions, compared with £1,026 millions in 1963-1964 and £946·9 millions in 1962-1963. An analysis of the cost of the service in £millions in 1963-1964 is given in the report as follows (the 1964-1965 estimates in parentheses):—Central Administration 5·069 (5·912); hospitals current expenditure 521·9 (567·5); hospitals capital expenditure 54·589 (64·96); Executive Council services administration 6·055 (6·465); general medical services 81·193 (92·138); pharmaceutical services 97·995 (116·66); general dental services 58·085 (60·86); supplementary ophthalmic services 16·84 (17·588); welfare foods service 30·29 (35·30); other central Government services 12·486 (13·8); payment by patients 38·873 (39·815); local health authority services 93·29 (103·2); local welfare services 48·3 (52·8). Total 1,026 (1,127). A prescription analysis by therapeutic class is on p. 30.

CHEMIST CONTRACTORS SIZE GROUP DISTRIBUTION IN 1963	
ANNUAL NUMBER OF N.H.S. PRESCRIPTIONS	NUMBER OF ESTABLISHMENTS
Less than 3,000	279
3,000– 5,999	975
6,000– 8,999	1,803
9,000– 11,999	2,077
12,000– 14,999	1,879
15,000– 17,999	1,518
18,000– 20,999	1,076
21,000– 23,999	778
24,000– 29,999	1,021
30,000– 35,999	521
36,000– 41,999	249
42,000– 47,999	138
48,000– 53,999	79
54,000– 59,999	25
60,000– 71,999	40
72,000– 83,999	17
84,000– 95,999	13
96,000– 107,999	13
108,000– 119,999	5
120,000 and over	10
Total	12,516

Note:—Includes only those chemists' establishments which issued prescriptions and were open the whole year. Establishments which changed ownership during the year are included.

PHARMACEUTICAL SERVICES EXPENDITURE 1963-64			
			£
(a)	Total gross payments to contractors	...	94,107,183
	Less net repayments of special interim payments	...	4,899
	Less charges to patients	...	21,098,840
			73,003,444
	Estimated breakdown of (a):—		
	(i) Dispensing fees and payments for services outside hours	...	15,318,000
	(ii) Cost of ingredients and allowances for containers	...	66,908,000
	(iii) Oncost allowance	...	11,881,000
			94,107,000
(b)	Medical practitioners:—		
	(i) Payments	...	3,717,756
	(ii) Superannuation, etc.—Executive Council's Share	...	174,756
			3,892,512
	Less charges to patients	...	1,506
			3,891,006
	Less charges deducted under N.H.S. (Service Committees and Tribunal) Regulations, 1956	...	2,803
(c)	Other payments	...	3,888,203
			154
	Totals (a) (b) and (c)	...	76,891,801

Prescription charges collected by doctors amounting to £641,151 and paid in cash and £417 received from the G.P.O. in respect of charges paid over by means of postage stamps are not included.

PRESCRIPTION ANALYSIS BY THERAPEUTIC CLASS. 1962-1964	NUMBER OF PRESCRIPTIONS			TOTAL NET INGREDIENT COST			AVERAGE NET INGREDIENT COST PER PRESCRIPTION	
	1962	1963	1964	1962	1963	1964	1963	1964
THERAPEUTIC GROUP	millions			£ million			pence	
Total ... ..	196.6	205.5	209.4	59.0	64.1	72.0	75	83
<i>Preparations acting on the alimentary system</i>								
(a) Antacids ... ..	6.5	7.0	6.9	1.0	1.1	1.2	38	42
(b) Gastro-intestinal sedatives ... ..	2.2	2.6	2.5	0.2	0.3	0.3	26	30
(c) Other preparations affecting digestive processes ... ..	1.9	2.0	2.2	0.9	0.9	1.1	109	121
(d) Tonics ... ..	2.7	2.7	2.4	0.3	0.3	0.3	25	27
(e) Laxatives and purgatives ... ..	3.9	3.8	3.6	0.5	0.5	0.5	33	34
(f) Preparations acting locally on the rectum ...	0.9	1.0	1.1	0.3	0.3	0.4	84	95
<i>Preparations acting on the cardiovascular system</i>								
(a) Anti-hypertensives ... ..	2.5	2.7	3.0	2.1	2.8	3.7	246	293
(b) Other preparations: cardiac drugs, vasodilators, vasoconstrictors, anti-coagulants and sclerosing agents ...	7.5	7.8	7.9	1.9	2.0	2.2	61	68
<i>Preparations acting on the nervous system</i>								
(a) Addictive analgesics ... ..	0.9	0.9	0.9	0.1	0.2	0.2	40	44
(b) Antipyretic analgesics ... ..	14.1	14.8	14.9	2.2	2.3	2.6	38	42
(c) Specific analgesics ... ..	3.4	3.8	4.3	1.7	1.9	2.3	122	127
(d) Barbiturates (unadmixed and if principal active ingredient) ... ..	15.8	15.9	16.1	1.7	1.8	1.9	27	28
(e) Non-barbiturate hypnotics ... ..	2.6	2.5	2.6	0.3	0.3	0.3	28	31
(f) Tranquillisers ... ..	6.6	7.1	9.0	2.7	3.0	3.9	102	105
(g) Anti-emetic preparations ... ..	1.0	0.9	1.0	0.4	0.4	0.4	98	104
(h) Anti-convulsants and other preparations for treating motion sickness and Parkinsonism	1.9	1.8	1.9	0.8	0.8	0.9	106	113
(i) Stimulants and appetite suppressants ...	5.4	4.9	5.1	1.3	1.3	1.4	61	67
(j) Anti-depressives ... ..	2.0	2.4	2.8	1.9	2.2	2.4	218	205
(k) Local anaesthetics, analgesics, counter irritants and miscellaneous ... ..	4.0	4.0	3.6	0.6	0.6	0.6	38	39
<i>Preparations acting on the genito-urinary system</i>								
(a) Sex hormones ... ..	2.2	2.3	2.6	0.7	0.8	1.0	83	90
(b) Diuretics ... ..	3.2	3.6	4.0	1.8	1.9	2.3	130	138
(c) All other preparations ... ..	2.1	2.2	2.1	0.4	0.4	0.5	48	54
<i>Preparations acting systemically on infections</i>								
(a) Penicillins ... ..	9.2	10.2	10.6	4.6	5.0	5.6	117	128
(b) Tetracyclines ... ..	6.9	8.6	9.4	8.0	8.8	9.1	246	231
(c) Other antibiotics ... ..	1.9	2.3	2.5	1.4	1.6	1.8	166	170
(d) Sulphonamides ... ..	4.5	4.2	3.6	1.0	0.9	0.8	49	54
(e) Vaccines and sera ... ..	0.4	0.5	0.5	0.1	0.1	0.1	69	71
(f) Other anti-infective agents ... ..	1.5	1.6	1.7	1.6	1.7	2.0	263	278
<i>Preparations affecting metabolism and nutrition</i>								
(a) Insulin and other hypoglycaemics ... ..	1.1	1.1	1.2	1.4	1.5	1.6	327	337
(b) Erythropoietic preparations including parenteral vitamin B <sub>12</sub> ... ..	5.3	5.5	6.2	1.0	1.1	1.3	48	52
(c) Vitamin preparations including multivitamin preparations with mineral salts ... ..	5.1	5.3	5.2	1.0	1.0	1.1	47	51
(d) Corticosteroids for systemic treatment ...	1.7	1.7	1.8	1.6	1.5	1.6	209	225
(e) Thyroid, anti-thyroid and other preparations affecting metabolism and nutrition ...	1.5	1.6	1.7	0.4	0.5	0.6	80	92
<i>Preparation acting on the respiratory system</i>								
(a) Preparations acting locally on the upper respiratory tract ... ..	6.5	6.3	5.7	0.6	0.6	0.6	23	24
(b) Expectorants and cough suppressants ...	17.8	18.6	16.2	1.9	2.1	2.0	27	30
(c) Bronchodilators, relaxants and other preparations affecting the respiratory system ...	4.9	5.5	6.2	1.5	1.9	2.5	85	95
<i>Preparations affecting allergic reactions</i> ... ..	4.7	5.0	5.6	1.0	1.1	1.3	51	55
<i>Preparations acting on the ear</i> ... ..	1.4	1.5	1.5	0.3	0.3	0.3	43	48
<i>Preparations acting on the eye (including anaesthetics and vasoconstrictors)</i> ... ..	3.2	3.2	3.3	0.5	0.5	0.6	40	44
<i>Topical preparations acting on the skin</i>								
(a) Fungicides, parasiticides and other specific anti-infective agents ... ..	2.0	1.9	2.0	0.4	0.4	0.4	49	51
(b) Corticosteroids ... ..	5.6	6.5	7.6	2.6	3.2	3.8	120	121
(c) Other preparations: sedatives, antipruritics, keratolytics and antiseptics including surgical antiseptics ... ..	6.2	5.8	5.6	0.9	0.9	1.0	38	42
<i>Other drugs and preparations (including individually formulated preparations not classified elsewhere)</i>								
(a) Dressings, appliances ... ..	5.7	5.7	4.8	0.5	0.5	0.5	22	25
(b) Trusses and hostery ... ..	5.8	5.6	5.3	1.6	1.7	1.7	71	76
	0.7	0.8	0.8	1.0	1.1	1.1	325	332



# IN PARLIAMENT

By A MEMBER OF THE PRESS GALLERY, HOUSE OF COMMONS

In the House of Lords on June 29, LORD CROOK referred to the current deficiency of staff in London hospitals. He also pointed out there was a large staff turn-over and he asked the appropriate authorities to examine the present rates for "London weighting" with a view to bringing salaries into line with progressive public and industrial undertakings. He did not think that the Civil Service received enough by way of allowances but he emphasised that members of that service received "a great deal more than they would get in the National Health Service." He compared London allowances of £70 on salary scales between £801 and £1,000, whilst other organisations were paying £125 and £150 on the same salary scale. In one year one of the London teaching hospitals with forty-eight members of staff in a nominal salary range, lost fourteen members, who left either for better pay in the centre of London, or in order to take up offers of employment nearer home. He did not wish to "rock the boat" about wage rates in general but he did want the Government to ask the appropriate authorities to examine the present London "weighting scale." LORD AMULREE could not understand why the weighting in the National Health Service of those under 21 should be less than the weighting of those over that age. LORD TAYLOR reminded members of the House that London weighting was a Whitley Council matter.

## Drug Industry Inquiry

MR. WILLIAM HAMLING asked the Minister of Health what representations were made to him by the trade union movement on the setting up of the Committee to inquire into the relationship between the drug industry and cost of the National Health Service. MR. KENNETH ROBINSON (Minister of Health), in a written answer on July 2, said that representations were made by the Trades Union Congress supported by the Northern Ireland Committee of the Irish Congress of Trade Unions. MR. HAMLING then asked the Minister of Health what representations he had received from the Trades Union Congress on the appointments of members to the committee of inquiry and MR. ROBINSON replied that the General Council put forward two names for consideration. MR. HAMLING asked the Minister if he was aware that one of the persons appointed to serve on the committee of inquiry was primarily an employer in the jute industry, and he wanted to know why the Minister had not appointed a person recommended by those representing employees. MR. KENNETH ROBINSON'S reply was that members of the committee were appointed for the contribution they could make to the work of the Committee and not as representatives of particular interests.

## Drugs in Hospital Service

In a written answer to MR. L. A.

PAVITT on July 5, MR. KENNETH ROBINSON provided the following information about the estimated usage in 1964 of the ten most widely prescribed drugs purchased under contracts placed centrally or by hospital authorities:—Halothane £650,000; chlorpromazine £270,000; ampicillin £240,000; cloxacillin £200,000; tetracycline £130,000; methicillin £120,000; phenethicillin £110,000; sodium diatrizoate £110,000; fusidic acid £80,000; and hydrocortisone sodium succinate inj. £80,000. MR. ROBINSON added that because of variations in the scope of hospital contracts for drugs it might be misleading to extend the list further. MR. PAVITT also asked the Minister of Health what drugs he proposed to purchase from abroad "for the service of the Crown" and MR. ROBINSON told him that tenders had been invited for the supply of chlorothiazide and hydrochlorothiazide but those drugs would not be purchased from abroad if the patentees or licensees in the United Kingdom submitted acceptable tenders.

## Prescriptions

MR. A. L. BUCHANAN-SMITH asked the Minister of Health what was the total number of prescriptions prior to the abolition of prescription charges compared with the three months following and what was the total cost of drugs and dispensing fees within the same period. MR. KENNETH ROBINSON in a written reply on July 5 provided the following information concerning prescriptions dispensed by chemists in England and Wales:—

	Prescriptions	£
November 1964	17,656,154	9,148,489
December 1964	17,634,277	9,239,457
January 1965	18,579,479	9,599,936
Total for three months prior to February 1, 1965	53,869,910	27,987,882
February 1965	20,775,870	10,344,473
March 1965	23,735,830	11,778,871
April 1965	20,213,539	10,296,893
Total for three months following February 1, 1965	64,725,239	32,420,237

## Hospital Pharmacists

When MR. HUGH FRASER asked the Minister of Health if he was satisfied with the recruiting arrangements for hospital pharmacists and with the speed of operating the present negotiating machinery on pay and conditions, MR. CHARLES LOUGHLIN (Parliamentary Secretary, Ministry of Health) replied on July 5 that the recruiting arrangements were primarily the responsibility of the hospital authorities and were generally satisfactory. The Minister had improvements constantly in mind. He had no plans for changing the negotiating machinery but was keeping under general review the working of the Whitley Councils. MR. HUGH FRASER also asked the Minister of Health whether he would seek to set up a central pool of pharmacists in each hospital management region, with members of the pool receiving an expense allowance and being on call for any hospital in the area. MR. LOUGHLIN in a written reply on July 5 said the recently agreed substantial increases in the pay of hospital pharmacists would, he hoped, improve recruitment. The Minister did not think that a scheme such as Mr. Fraser had proposed was needed.

# LEGAL REPORTS

## Poisons Act Infringement

THE purchase of a bottle of Famel syrup and a bottle of Antussin had a sequel at Old Street magistrates' court on July 5 when the owners of the shop concerned, Whitecross Drug Stores, Ltd., 195 Whitecross Street, London, E.C.1, were fined a total of £40, £10 on each of four summonses, for infringing the Pharmacy & Poisons Act, 1933. The company were also ordered to pay £10 costs. All the offences were admitted. MR. A. C. CASTLE, prosecuting, said there were two pairs of summonses. They related to the alkaloid codeine in Famel syrup and to ephedrine hydrochloride in Antussin; and the sale of the preparations in containers not labelled with the name of the sellers and the address of the premises on which they were sold. The selling of the two Part I poisons was illegal, Mr. Castle pointed out, because the defendant company were not authorised sellers of poisons as laid down by the Act. The purchases were made by a lady agent of the Pharmaceutical Society and she purchased a bottle of Antussin and a bottle of Famel syrup. She asked to see the proprietor and a Mr. Liberman, a director, came from a stall outside the shop. She told him who she was and asked for his comments, saying she thought the offences

had been committed in relation to the sale of the two preparations. "He was rather abusive I am sorry to say," added Mr. Castle. "He said she made it her business to go round like a sneak, victimising little people and she could find out who the owner of the business was. She left without getting much satisfaction." He said he did not for one moment suggest that the quantity of poison in each of those bottles was considerable but the Poisons Board, in their wisdom, obviously expressed the view that those sort of commodities should not be handled by ordinary traders. The magistrate said "A qualified man can be disciplined if he does not keep to the standards of the profession. An ordinary trader cannot be disciplined. A pharmacist would not dare to sell these things in unlimited quantities, or any quantity, to unsuitable people."

A solicitor for the defendants said Mr. Liberman had not known that "this was on the Poisons List." He was now making a study of it.

It was not a serious or deliberate breach of an Act of Parliament, having serious consequences to the public.

The magistrate: "We all know why he was doing it. He was doing this because other beauticians are sticking to the rules."

A fortnight was allowed for payment of the £50.



## Should Not Anticipate Licence

THE Court of Appeal, London, on June 29, dismissed an appeal by D.D.S.A. Pharmaceuticals, Ltd., York Street, London, W.1, from a decision of Mr. Justice Lloyd-Jacob in the High Court on April 29 granting an interlocutory injunction restraining them from advertising or selling tablets containing chlordiazepoxide or its hydrochloride. The injunction was sought by F. Hoffmann-La Roche A.G., Basle, Switzerland, who claimed that D.D.S.A. had infringed a patent relating to their product Librium. Giving judgment, Lord Denning (Master of the Rolls) said that the Swiss company, through their English subsidiary, produced the drug Librium. They owned the patent and the court had been told that no single citation had been made against the invention anywhere. D.D.S.A. had acquired from overseas some of the substance, had made it into tablets and had sought to put it on the market—"on its face a complete infringement of patent." At the same time, they had applied for a compulsory licence under section 41 of the Patents Act, 1949. But they did not wait to get it. They obtained the substance from overseas and were selling the tablets made from it. The defendants contended that the patents were invalid, and petitioned for their revocation. They took objection to them on the ground that two of the claims were invalid in that they were so widely framed that they covered a multitude of compounds. Some of them, they suggested, might be toxic and have side effects harmful to individuals, and were therefore of no use. But they had to admit that a claim in the patent covering the very substance was quite narrow and was valid. The judge said it was quite clear that it was for the plaintiffs when seeking interlocutory relief to show a *prima facie* case that their patent was valid and that there had been an infringement. It was also clear that there was an infringement if the patent was valid. It seemed, said Lord Denning, that when one had a patent of such long standing all over the world, with no citation against it, much respected and not challenged until now, there was *prima facie* evidence of its validity. Even if other claims in the patent were so wide that the probabilities were that they were invalid, it was quite plain that one claim was valid. Section 62 of the 1949 Act said that if in proceedings for infringement of a patent it was found that any claim of the specification, in respect of which infringement was alleged, was valid, but that any other claim was invalid, the court might grant relief in respect of any valid claim which was infringed. That section was by itself sufficient ground for granting an interlocutory injunction here. On the balance of convenience, it was said for the defendants that as they were ready to keep an account of profits, and no harm would be done by letting them carry on until, as seemed likely, they obtained a compulsory licence. "But," said the judge, "a person who was entitled in proper circumstances to a compulsory licence ought not to anti-

cipate the granting of it." He must make his application and wait until he got it, with all its conditions attached. The proper course here was to restrain the defendants. Agreeing, LORD JUSTICE HARMAN said that it was another round in the war being carried on by a number of small pharmaceutical companies in the United Kingdom against the "great monopolists." It having been discovered that there were no royalties in Italy, enterprising groups of persons had imported the drugs and had advertised and circulated the trade, promising them cheaper supplies of drugs. The objection was that it was impossible to have that control over the import of such drugs as could be imposed when a licence was given, as it might be. LORD JUSTICE WINN also agreed that the appeal be dismissed.

## COMPANY NEWS

Previous year's figures in parentheses

**EVANS MEDICAL, LTD.**—Mr. C. W. Robinson, M.P.S., is resigning from the board to take up a senior administrative post with the Runcorn Development Corporation.

**AMERICAN CYANAMID CO.**—Mr. John Allegaert has been elected president. Mr. Allegaert succeeds Mr. Kenneth H. Klipstein, who reached retirement age in March. Mr. Klipstein will continue as a member of the board of directors and the executive committee.

**UNITED GLASS, LTD.**—The directors intend in the near future to issue a first mortgage debenture stock for cash and at the same time to reorganise the loan capital of the group by exchanging the £598,000 6½ per cent. debenture stock 1978-82 of Key Glassworks, Ltd., for an equivalent amount of 6½ per cent. first mortgage debenture stock 1978-82 of United Glass, Ltd. They also intend to exercise the company's right to redeem £750,000 5¼ per cent. unsecured loan stock 1964-67 at 101½ per cent. plus accrued interest.

**LAPORTE INDUSTRIES, LTD.**—The directors take a "confident view" of the future. A number of heavy investments in plant and processes are about to "yield a decent return" and from the order book some facts are known about immediate prospects. But the impending corporation tax in its present form will require substantially increased profits to be made if the company is to maintain its present dividends and retentions. External sales during the year ended March 31 totalled £26.5 millions (£24.8 millions). The E.E.C. took 33 per cent., and E.F.T.A. 12 per cent., while North America took 7 per cent. (for accounts and dividend, see *C. & D.*, June 26, p. 650).

**BEECHAM GROUP, LTD.**—The main feature of the pharmaceutical division during the year ended March 31 was the continued progress of the company's new penicillins, states the chairman (Mr. H. G. Lazell), in his annual review accompanying the accounts. Substantial success was being achieved in overseas markets and at home production efficiency had been achieved without increasing the plant at Worthing. He states that the company now accounts for one-fifth of United Kingdom

antibiotic exports. A "substantial" reward was hoped for from the discoveries, "provided that the value of worldwide patent protection is not eroded." Turning to the group's activities as a whole, Mr. Lazell states the trading profit increased by 28 per cent. to £12.4 millions; there was an increase of 59 per cent. in overseas earnings. Referring to the Government's new tax proposals, Mr. Lazell stresses the need for a "much closer look" at the facts before finally adopting a policy "which has the general effect of discouraging overseas investment." The company's total overseas investments which stand in the books at some £6 millions, have brought back to this country a total of nearly £6 millions during the last five years. In addition the overseas subsidiaries have ploughed back more than £1 million during the period, giving a total average yield on the investment of nearly 25 per cent. a year. During the period export operations earned the U.K. a further £20 millions in foreign currency—a substantial proportion of which was generated by the overseas subsidiaries. Excluding confectionery, turnover of the food and drink division increased from £20.1 millions to £22.3 millions. Mr. Lazell reports that the profit from the toiletry company in the United States was in excess of £850,000 (for accounts and dividend statement, see *C. & D.*, May 29, p. 548).

## BUSINESS CHANGES

**ALFONAL, LTD.**, have moved to Church Road, Worcester Park, Surrey (telephone: Derwent 3877).

**COW & GATE, LTD.**, have transferred their head office to Cross Lanes, London Road, Guildford, Surrey (telephone: Guildford 68181).

**A. R. CROSS (PORTSMOUTH), LTD.**, have transferred their pharmacy to 15 Arundel Street (from 13 Russell Street). Managing director is Mr. A. W. Dempsey, M.P.S.

## Appointments

**HOWARDS OF ILFORD, LTD.**, have appointed Dr. P. V. Clifton their commercial manager (technical).

**JEAN SORELLE, LTD.**, 21 Turle Road, London, N.4, have appointed Mr. E. D. Copley their home sales manager.

**G. D. SEARLE & CO., LTD.**, High Wycombe, have formed a veterinary division headed by Mr. F. W. Havard, who has been appointed sales manager. Mr. D. F. Wishart, B.V.M.S., M.R.V.S., has been appointed veterinary adviser and technical manager of the new division.

**GILLETTE INDUSTRIES**, Great West Road, Isleworth, Middlesex, announce the formation of an international medical division to be headed in Boston, U.S.A., by Mr. P. M. Cuenin who for the last eighteen months has been managing director of Gillette Surgical (the group's British medical company). Mr. Cuenin is succeeded in the United Kingdom by Mr. C. A. Ganderton.

**WHITMOYER-REED, LTD.**, Barking, Essex, have appointed Mr. D. J. Wallington their assistant sales manager; Mr. I. M. Groves succeeds him as regional sales manager, Southern region.



## OVERSEAS VISITS

MR. G. S. WRIGHT (general sales manager, Whitmoyer-Reed, Ltd.), leaves England on July 17 for a two-week visit to America. Mr. Wright will fly first to Chicago to attend the United States Feed Manufacturers Convention and Exposition where the Whitmoyer-Reed parent company—Whitmoyer Laboratories Inc.—will be showing their range of animal health products. Later he will travel to Virginia and Pennsylvania.

## PERSONALITIES

MR. H. JONES, who has been manager of Ayrton Saunders (North Wales), Ltd. since its commencement in 1961, has been appointed a local director. Mr. Jones has spent a life-time in pharmacy and has been closely connected with the pharmacists of North Wales for some thirty years.

MR. J. F. O'HARA who has been works director of R. Sumner & Co., Ltd., Liverpool, 1, since March 1955, has retired after 53 years' service with the company. He joined the company as representative in the Midlands area. Later he moved to head office and prior to the 1939-45 war was appointed works manager. A presentation of Premium Bonds was made to Mr. O'Hara as a token of the good wishes of the board and company. Mr. O'Hara was also presented with a stainless steel tea service and tray by the directors and staff.

PROFESSOR B. D. BURNS, who is at present professor and chairman of the Department of Physiology, McGill University, Montreal, has accepted an appointment to the scientific staff of the Medical Research Council as head of the division of physiology and pharmacology at the National Institute for Medical Research, in succession to Professor Feldberg, who will be retiring from this post in November. Professor Burns has been particularly concerned with neuro-physiological studies of the brain, and it is intended that his work in that field should be continued when he takes up his appointment at Mill Hill next year.

MR. I. G. MARSHALL, B.Sc., has been awarded the 1965-66 Agnes Borrowman Research Award, founded by the late Miss Borrowman, Clapham. Mr. Marshall was educated at Bolton School, Lancs, and at Hamilton Academy School, Lanarks. He graduated in pharmacy at the University of Glasgow and is at present working in the University of Strathclyde as assistant to Professor J. B. Stenlake. He proposes to use the award for research on the pharmacological action of a group of bis-quaternary ammonium derivatives of (+)-tubocurarine and (-)-curarine, and their respective dimethyl ethers. The work involves the study of neuromuscular blocking properties of those compounds in order to evaluate the influence of stereochemistry in that series on their biological action. The award was made by the trustees of the fund, Sir Hugh Linstead and Professor J. W. Fairbairn.

MR. C. W. ROBINSON, M.P.S., who has resigned from the board of Evans Medical, Ltd. (see p. 32), joined that

company in 1950 as pharmaceutical development director after serving for five years as secretary of the Wholesale Drug Trade Association and the Association of the British Pharmaceutical Industry. He is a member of the British Pharmaceutical Codex Revision Committee, the British Veterinary Codex Committee and the subcommittee on agricultural and veterinary practice of the Pharmaceutical Society and of the Standing Pharmaceutical Advisory Committee of the Ministry of Health. He was the first president of the Industrial Pharmacists' Section of the International Pharmaceutical Federation and is a past chairman of the Liverpool Branch of the Pharmaceutical Society, the specialties division of the A.B.P.I., and of the Square Association. In his new capacity, Mr. Robinson will be relinquishing his active connection with pharmacy to be concerned administratively in the development of a new town designated for the re-housing of some 7,000 people in Merseyside.

## DEATHS

ARMITAGE.—Recently, after a short illness. Mr. Norman Armitage, M.P.S., 8 Leeds Road, Hipperholme, Halifax. Mr. Armitage qualified in 1916. He had been in business as a chemist in the Hipperholme district for forty-eight years.

BOOT.—On June 2, Mr. Fred Boot, 108 Hutcliffe Wood Road, Beauchief, Sheffield, 8. Mr. Boot qualified as a chemist and druggist in 1920 and retired in 1961.

COOPER.—On June 21, Mr. William Henry Cooper, M.P.S., 582 Oldham Road, Failsworth, Manchester. Mr. Cooper, who qualified in 1919, had been ill for some time. The business in Oldham Road was established by Mr. Cooper's father. It was formed into a limited company a short time ago, with Mr. Raymond Cooper, who is not a relative, as a co-director.

GIBBS.—On June 11, Mr. John Ivor Frank Gibbs, M.P.S., 45 Penny Park Lane, Coventry, Warwicks. Mr. Gibbs qualified in 1963.

GORDON.—Suddenly, on June 28, Mr. Frank Kellas Gordon, M.P.S., 478 Union Street, Aberdeen. Mr. Gordon qualified in 1937.

HEPWORTH.—Recently, Mr. Arthur George Hepworth, M.P.S., of Hepworth's Pharmacy, Box 115, Kurow, North Otage, New Zealand. Mr. Hepworth qualified in 1933.

LEVER.—On June 11, Mr. Jacob Nathan Lever, M.P.S., 67 Central Road, West Didsbury, Manchester, 20. Mr. Lever qualified in 1910.

LIVESEY.—On June 17, Mr. George Forrest Livesey, M.P.S., 1 Bank Place, Ashton-on-Ribble, Preston, Lancs. Mr. Livesey qualified in 1911.

McMILLAN.—On June 10, Mr. James Smith McMillan, M.P.S., 132 Grosvenor Road, South Shields, co. Durham. Mr. McMillan qualified in 1932.

MUNRO.—Recently, at Basle, Switzerland, while on holiday, Mr. William Blunt Munro, M.P.S., 15 South Park Road, Hamilton, Lanarks. Mr. Munro

qualified in 1925. He was a Justice of the Peace for the County of Lanark.

OWEN.—Suddenly, on June 26, Mr. Thomas Welsh Tait Owen, M.P.S., 38 Main Street, Kirkconnel, Dumfriesshire. Mr. Owen qualified in 1937.

SCHAEFER.—On June 19, Mr. Douglas Schaefer, M.P.S., 19 Commercial Street, Rishton, Blackburn, Lancs. Mr. Schaefer qualified in 1935.

SMITH.—On June 23, Mr. Arthur Ernest Smith, M.P.S., Barrie Holm, 54 Middleton Boulevard, Wollaton Park, Nottingham. Mr. Smith qualified in 1924.

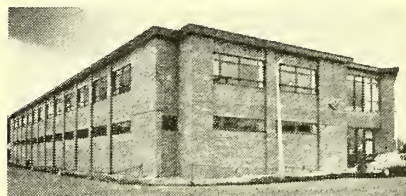
WEBB.—Recently, Mr. Albert Webb, M.P.S., c/o 60 Brockhurst Road, Ward End, Birmingham, 34. Mr. Webb qualified in 1934.

WOODCOCK.—On June 23, Mr. George Thomas Woodcock, 22 Roman Way, Caister-on-Sea, Great Yarmouth, Norfolk. Mr. Woodcock qualified in 1923 and retired in 1960.

WOODS.—On May 30, Mr. Hugh Matthew Alfred Woods, M.P.S., 247 Regent Road, Salford, 5, Lancashire. Mr. Woods qualified in 1924.

## EXPANSION PLANS

BOOTS, Ltd., are to carry out major development of their premises at Southport and Chester. At Southport, alterations to the Lord Street shop, costing about £157,000, are to begin in October and involve installation of an escalator, new shop front and several new departments. During the alterations service will be provided from the Chapel Street branch. The Chester development involves the transfer of the Eastgate Street branch to a newly developed site nearby, with access from Eastgate Row and Newgate Street. The new building, costing £125,000, will treble the floor area to about 8,900 sq. ft.



**NORTHERN PHOTOGRAPHIC DEPOT:** The opening on June 1 by Agfa, Ltd., and Gevaert, Ltd., of a new depot in Manchester marked another step towards the merger of the two companies in the United Kingdom. The newly built depot, situated at 43 North Street, Cheadham, Manchester, 8 (Telephone Blackfriars 9854), is intended to supply the counties of Lancashire, Yorkshire and Cheshire.

E. R. SQUIBB & Sons, Ltd., Speke, Liverpool, have been given outline planning permission to erect a new factory on a 21-acre site in Read's Lane, Moreton, Ches. The new factory will cost £1 million and employ 800 people. A public inquiry was held in April when Wallasey Corporation and Messrs. Squibb appealed against the proposals of the Ministry of Housing and Local Government to re-allocate the land for residential purposes. The inspector, in his report on the inquiry, said there was no significant volume of opposition to the proposal for the factory from local residents.



## TRADE NOTES

**Title Amended.**—Orders for Nostroline should be sent to Matthews Laboratories, Ltd., Berriew, Montgomerys. [Corrected note.]

**Sole Distributors.**—Eucryl, Ltd., Oakley Road, Southampton, are now the sole distributors of Esobactulin oral vaccine capsules manufactured by Southon Laboratories, Ltd.

**Wholesaler's Advisory Service.**—The shopfitting advisory service undertaken by E. H. Butler & Son, Ltd., Leicester, is promoted under the title Selmor and not as recently indicated.

**Dispensing Pack.**—Merrell-National (Laboratories), Ltd., 20 Savile Row, London, W.1, advise the introduction of a new purchase tax free dispensing pack of Kolantyl Gel 32 oz.

**Size Increase.**—Leopold Charles & Co., Ltd., 27 Whitfield Street, London, W.1, announce that Shostakovsky balsam is now being packed in 100 gm. containers only.

**Wrongly Stated.**—E. R. Squibb & Sons, Ltd., Regal House, Twickenham, Middlesex, regret that due to a printing error in their June trade price list, the retail price of Tarquinor ointment 1 oz. is wrongly stated and should be 3s. 6d.

**Larger Size Only.**—Garsalle (U.K.), Ltd., Saffron Walden, Essex, state that public demand has resulted in the decision that Ulay vitamin night cream in future will be packed in an 80 gm. jar, the present 48 gm. pack being discontinued.

**Complete Packs Only.**—Riker Laboratories, Loughborough, Leicestershire, are now issuing the range of Medihaler products as complete packs only. Each pack includes a plastic oral adapter. The company state that re-fill vials should be supplied against prescriptions until stocks are exhausted.

**New Sizes.**—Jackel & Co., Ltd., Shuna Place, Maryhill, Glasgow, N.W., have introduced a one application ½-oz. size Living Hair Conditioner in a plastics tube. The company has also made available protein shampoo in a pyramid shaped sachet containing sufficient for two shampoos.

**Frankfurt Fair.**—Lep Transport, Ltd., Sunlight Wharf, Upper Thames Street, London, E.C.4, draw the attention of exhibitors at the Frankfurt International Fair and those who are proposing to attend the exhibition to the fact that they are the official agents for the United Kingdom and Eire.

**From China.**—China National Chemicals Import & Export Corporation draw attention to the availability from their various branches of a number of pharmaceutical chemicals of Chinese origin, ranging from sulphonamides, antibiotics and vitamins to steroids and piperazine salts. Details are published elsewhere in this issue.

**Competition.**—H. J. Heinz Co., Ltd., 103 Mount Street, London, W.1, are running a "Mini for Mother" contest until September 18. The prizes are 10 de luxe Minis. Entrants are invited to list the eight advantages of a "Mini for Mother" in their order of importance. Six Heinz baby food

labels must accompany each attempt.

**Leak-proof and Non-irritant.**—Down Bros. and Mayer & Phelps, Ltd., Church Path, Mitcham, Surrey, are now making available the Chiron clear-seal disposable ileo/colostomy bag with an improved transparent adhesive. It is claimed that the new adhesive besides being non-irritant, ensures a satisfactory seal.

**Discontinued.**—PFIZER, LTD., Sandwich, Kent, have withdrawn their preparation Nephрил-R, containing reserpine, in addition to polythiazide and potassium chloride.—JOHN BELL, HILLS & LUCAS, LTD., Worsley Bridge Road, London, S.E.26, have withdrawn San Sat from their list and stocks are exhausted.

**No Change.**—CIBA Laboratories, Ltd., Horsham, Sussex, state that the formulation and method of manufacture of Antistin Pristine solution has not been changed and it still includes phenylmercuric nitrate 0.002 per cent. w/v as a bactericide. If Antistin Pristine solution is to be used in the eye, they recommend that it should be heated to 98-100° C. in the final closed container for thirty minutes.

**Convenient Contraction.**—Imperial Chemical Industries, Ltd., pharmaceuticals division, Alderley Park, Macclesfield, Cheshire, have adopted "Synalar" C as a convenient abbreviation for use in describing "Synalar" with chinoform. The company state that Prescription Bureaux have been informed and future labels and cartons for "Synalar" Chinoform cream and "Synalar" Chinoform ointment are to be designated "Synalar" C.

**Expanding Market.**—Inecto, Ltd.,

Inecto House, 27 Dover Street, London, W.1, state they are receiving a vastly increasing number of inquiries about lightening and bleaching hair. They advise that the market is expanding rapidly and arrangements have been made to cope with the increased inquiries at the advice bureau, 27 Dover Street, London, W.1, or the other bureaux in Birmingham, Manchester, Liverpool and Glasgow.

**Holiday Closing.**—G. H. Zeal, Ltd., Lombard Road, Morden Road, London, S.W.19, advise that their offices and works are closing on July 24 and will reopen on August 9. A small clerical staff is being retained to deal with urgent inquiries. EDWARD TAYLOR, LTD., Monton, Eccles, Manchester, are closing their factory on July 24 and re-opening on August 2. During that time a skeleton staff will deal with urgent orders. The factory will also be closed on Monday, August 30.

### Christmas Showrooms

THE following have been notified:—

GOYA, LTD., Red Lion Hotel, Truro, July 14 and 15.

ROBERTS WINOSOR, LTD., Metropole Hotel, Brighton, July 12-15.

FIELDS OF BONO STREET, Metropole Hotel, Brighton, July 12-16.

### Bonus Offers

CUXSON, GERRARD & CO., LTD., Oldbury, Birmingham. Carnation range. 10s. discount on introductory parcel offer.

### Premium Offers

COOPER, McDUGALL & ROBERTSON, LTD., Ravens Lane, Berkhamsted, Herts. Special offer of a miniature Midi eau de toilette Aerosol spray to each purchaser of Fresh-air aerosols for 5s. (saving of 5s. 6d.). Until September 30.

## INFORMATION FOR MANUFACTURERS

**Hong Kong Trade Directory.**—A 1964-65 edition of the Hong Kong Trade Directory which includes a trade index and classified list of companies has been published by the Diplomatic Press & Publishing Co., 13 Cotswold Gardens, London, N.W.2, price 20s.

**Stainless Steel Fabricators Listed.**—A list of members of the Stainless Steel Fabricators Association, 75 Harborne Road, Birmingham, 15, is available from the Association, together with a classified list of products.

**Fragrance and Perfumery.**—Antoine Chiris, Ltd., Bridge House, Tadworth, Surrey, draw attention to the worldwide facilities they can offer to manufacturers using essential oils, isolates or combinations either in the manufacture of perfumes, soap, cosmetics or the pharmaceutical industry. The company claims special knowledge of essential oils, floral absolutes, chemical isolates, and are able to advise manufacturers on their use.

**Measuring Animal Movements.**—An idea in measuring body displacement is announced by Faraday Electronic Instruments, Ltd., Sheerness, Kent. The device (the "animal activity recorder") measures and records—without the use of tilting cages, photo-electric beams or gadgets and wires attached to the animal—movements of animals under-

going drug tests. The instrument may also be used to record movements of patients in hospital.

**Distribution in Southern Africa.**—A. J. North & Co., Ltd., P.O. Box 716, Cape Town, South Africa, one of the oldest-established companies in that area, offer facilities in manufacture, distribution and sales promotion for one or two large manufacturers of products in the toilet, cosmetic and household fields. The company have a factory in East London and stock depôts and sales offices in Johannesburg, Cape Town, Durban, Port Elizabeth, East London, Bloemfontein, Salisbury and Bulawayo.

**Booklet on Nickel Plating.**—A new publication, "Nickel Plating—Technique and Applications" produced by the International Nickel Co. (Mond), Ltd., discusses the surface preparation of the basis metals to be plated. Details of the preparatory treatment for nickel and nickel alloys are given in a concise table. Many applications are listed, ranging from the well-known nickel-chromium plating for decorative finishes, to industrial applications such as the protection of pipes and containers handling corrosive liquids. Copies of the booklet may be obtained free from 20 Albert Embankment, London, S.E.1.



# NEW PRODUCTS AND PACKS

## PHARMACEUTICAL SPECIALITIES

**Fluoride Tablets.**—Dental Health Promotion, Ltd., 52A Redcliffe Road, London, S.W.10, are shortly to introduce Fluor-a-day Lac tablets, described as lactose-based fluoride tablets containing 2.2 mgm. sodium fluoride. Pack is a tube of 200 tablets.

**Available Under Trade Mark.**—Approved Prescription Services, Ltd., Cleckheaton, Yorks, have added to their list Penicillin VK tablets 125 mgm. and 250 mgm. under the registered trade mark Apsin V.K. Both strengths are available in containers of 100, 500 and 1,000.

**Syrup Formulation.**—Upjohn, Ltd., Fleming Way, Crawley, Sussex, have introduced Lincocin syrup to the existing range of Lincocin capsules and Lincocin sterile solution. On prescription only, the pack is 60 ml. and the syrup contains 125 mgm. lincomycin hydrochloride monohydrate per 5 mls.

**Treatment of Insect Bites and Stings.**—Wasp-Eze, manufactured by West Mount Chemical Co., Ltd., 19 Borough Road, Sunderland, is said to give im-



mediate relief to insect stings of all types as well as stings from nettles and jelly fish. Packed in an aerosol spray, the preparation contains mepyramine maleate, 0.5 per cent. w/w, and benzocaine 1 per cent. w/w. The clinical trials were carried out at Newcastle University Medical School.

## VETERINARY SPECIALITIES

**Vitamin Supplement.**—V-Mix, a new vitamin supplement for poultry, pigs and calves whose normal assimilation or utilisation has been upset, is announced by Whitmoyer-Reed, Ltd., Barking, Essex. Containing ten soluble vitamins in powder form, it is designed for use in the drinking water of pigs, poultry and calves. The use of V-Mix is claimed to be valuable when poultry are being vaccinated, caged, de-beaked or handled, and is particularly effective for starting chicks and poults. The contents of one sachet of the V-Mix should be mixed with each 45 gallons of drinking water for five days. That dosage is also recommended during the treatment of coccidiosis, Newcastle disease and worms in breeding flocks. For pigs one sachet to each 25 gallons of drinking water for five days is recommended, whilst for calves one teaspoonful per calf per feed for three days is advised. The dose may be given in water, glucose or milk.

## COSMETICS AND TOILETRIES

**In Collapsible Tube.**—International Laboratories, Ltd., 205 Hook Road, Chessington Surrey, are to issue a new 2½ oz. size of Linc-o-Lin beer sham-



poo, to replace the 2 oz. baby barrel. The new product is in a cartoned metal collapsible tube pack that is easier to use and has much better display value than the older pack.

**For Tropical Complexions.**—A. J. Seward & Co., Ltd., P.O. Box 1, 6 Stamford Street, London, S.E.1, have launched the Monica Smart range of beauty preparations "of international standard" claimed to be "developed specially for ladies with tropical complexions." The range includes lipsticks, face powders, talcum powder, roll-on deodorant and a special skin tone foundation cream. The range is strikingly packed in gold, white and black with a cameo motif. The company are to extend the range by the introduction of a further nine products.

**For Autumn.**—To meet the demand for a lighter foundation lotion, Lenthéric Limited, 17 Old Bond Street, London, W.1, have produced for the autumn season a new range called Marisse. Marisse foundation lotion is emollient and a particularly good moisturiser. It has a pleasant "non-tacky" feel and gives protection from harsh winds. The lotion is easy to apply and the cover is adequate but not heavy, leaving the skin with a natural, living look. Available in five shades:—Le Touquet, Lumière, Biarritz, Nice and Cannes. To emphasise the lightness of the Lumière look, Lenthéric have also formulated a new shade of loose face powder called Lumière. Lumière Face Powder is said to fix the make-up and give a gentle matt finish but adds no overtones to the skin, leaving the overall make-up lightly transparent. The company have also introduced two new shades of lipstick. Lumière, "the truest clearest red" and La Française "a vibrant rose-pink."

**Complexion Flaws Disguised.**—Helena Rubinstein, 3 Grafton Street, London, W.1, announce the introduction of a new cosmetic which "hides all minor complexion flaws with a few strokes." Under the name Conceal, the product looks like a lipstick and is easily carried in a handbag. The company states that it camouflages circles and dark shadows under the eyes, covers freckles, moles, expression lines, blotches and broken veins, hides cheek

hollows, and disguises pouches and crevices around the mouth. Conceal is available in three shades, Ivory-Tone, Peach-Tone and Tan-Tone. The company has also added three new "pearl-escence" lipstick colours to its Golden lipstick range. Apple blossom pink is a "delicate petal pink," Bikini peach is "truly a peach of a colour" and Bikini honey "has a luscious golden undertone"; another addition is a new hand cream to the Skin Dew treatment range. The hand cream contains collagen protein and counteracts the drying effect of water, harsh detergents and weather and "brings back supple smoothness in only a few days."

## SUNDRIES

**Gift Pack.**—Raywarp Textiles, Ltd., Alfred Street North, Nottingham, have added to their range a gift pack for their Chi Chi headliner in the form of a blue and cerise hexagonal box.

**Repackaged.**—Johnson's cotton buds, manufactured by Johnson & Johnson (Gt. Britain), Ltd., Slough, Bucks, are now being packaged in a new, easy-to-



open-box with a lift-up lid. In three sizes containing 18, 54 or 90 buds, the cotton buds are layered in the boxes with cardboard in between.

**Three Shavers.**—Specially designed for point of sale presentation is the pack adopted by Schick Incorporated (U.K.), Ltd., Newport, Wisborough Green, nr. Billingshurst, Sussex, for their de luxe Magna Power shaver. The shaver is contained in a substantial travel pack of moroccan grain finish and the shaver "counter" balances the lid to tilt for display purposes. A coiled shaver lead has also been adopted so that it can easily be replaced after use a feature, the company point out, that should prove to be of great assistance when demonstrating at the counter. The Superspeed shavers, available in triple and single voltage units are claimed to have the largest shaving head area of any electric shaver on the market. Both shavers are packed in crocodile presentation cases that include a bottle of Swagger Preshave and a bottle of Shaver Clean. The Slimline Cordless Shaver is housed in a quality travel case complete with a simple charging cord. The shaver can be charged on any voltage 90-240 volts a.c. and a unique feature is the Powerlite recharge indicator giving advance warning of the need to recharge.



## BRANCH EVENTS

### BRIGHTON

#### Film Evening

FOLLOWING the annual meeting of the Brighton and Hove Association of Pharmacy, held recently, MR. C. MUR-GATROYD showed two sound films by Allen & Hanburys, Ltd. The first "This Is Your Lung" portrayed the perils of cigarette smoking, and the second "Profound Hypothermia," which was made with the co-operation of the Westminster Hospital thoracic unit demonstrated intra-cardiac surgery being carried out during complete respiratory and circulatory arrest in a still, dry, heart. A number of students were present during the showing of the films.

### EDINBURGH AND SOUTH-EASTERN SCOTTISH

#### Twenty-five Years

THE retiring chairman of the Edinburgh and South-eastern Scottish Branch of the Pharmaceutical Society (Mr. W. S. Tait) gave a talk entitled "Pharmaceutical Scrapbook," illustrated by colour slides, following the recent annual meeting of the Branch. His "scrapbook" covered the twenty-five years from 1940 and he recalled the bombing of London and other cities, during which the historic pharmacy "Plough Court" was destroyed. The postponement of building operations on the new headquarters building then being constructed in Brunswick Square, its subsequent transfer to the University of London and the Society's search for a new headquarters formed another section of Mr. Tait's talk. The introduction of purchase tax and its persistence to the present day called forth comment from the speaker. He also made a comparison of the length of time for which medicines were prescribed, under National Health Insurance agreements before 1940 (one week), in 1946 (12.99 days estimated by the Pharmaceutical Standing Committee not including preparations for external use) and present trends. To supply a sedative or tranquilliser in sufficient quantity for fifty, 100 or even 150 days allowed a dangerous excess for use or misuse, said Mr. Tait. He thought greater use might have been made of post-dated prescription forms.

### PLYMOUTH

#### Developments in Education

MANY students admitted to the honours degree course in pharmacy of the University of London might be considered by many to be unfitted for the academic standards demanded of them said PROFESSOR D. A. NORTON (head, school of pharmacy, Bristol College of Science and Technology) addressing a meeting at Plymouth Branch of the Pharmaceutical Society recently. Professor Norton, who was discussing recent trends in technological education, first traced the history and development of pharmaceutical education. He stated that in its early years the Pharmaceutical Society had been more concerned with setting up a system of examination than with courses of instruction and training had been through apprenticeship. The student had presented himself

for examination whether or not he had experienced formal tuition within a school of pharmacy. Gradually private schools had been set up and in the context of their day and age such schools had done a good job. The Society had then extended its power in overseeing the standards of education and of preparation for examination and subsequent registration. Many members would recall the days of the old "major" and "minor" examinations. Between the wars university degrees in pharmacy had been developed and graduates in pharmacy admitted to the register provided they fulfilled certain additional requirements such as passing the Society's examination in forensic pharmacy. However, the number of such degrees had been few and the speaker felt that the senates of some universities had been reluctant to recognise pharmacy as a university discipline. With current recognition of the colleges of advanced technology as universities, five of them possessing pharmacy schools, and with the development of pharmacy degree courses by certain technical colleges under the aegis of the Council for National Academic Awards, the situation had changed. He visualised that within the next few years all pharmacists would qualify through a degree course. In effect that meant that the Society's rôle as an examining body would cease but its responsibilities for standards of training would remain because of its power to refuse recognition for registration purposes of any course that did not meet the required level of education. The Society could be relied upon to use that power wisely and to apply it to reciprocal registration agreements with other countries. Professor Norton then examined the shortcomings of the traditional routes to qualification, both degree and diploma, and the criticisms that had been levelled against them. The diploma course, for example, had been described as a "dead end" for the more academically inclined student, over-biased towards general practice and offering only a narrow education. On the other hand, when one considered the London degree taken by so many hundreds of students on the external basis, many might consider that a large proportion of students admitted to that honours course were not really fitted for the academic standards demanded of them. Professor Norton referred to the "Robbins Report" which, as a main recommendation, had urged the increase in the number of university places available in the country. The Government, in implementing the main recommendations of the Report, had agreed to the recognition of the colleges of advanced technology as universities and these were now awaiting their new charters. Internal degrees would be provided by those new universities on the same basis as their longer-established sister institutions and with the same safeguard for academic standards through the appointment of external examiners in the various disciplines. Professor Norton reminded his audience that the majority of students proceeded direct from school to university and did not come into contact with

the practice of pharmacy until after graduation. He appealed to those in practice, whether in retail, hospital or industry, to make an investment in the training of post-graduate students and he discussed briefly the possibilities of integrated academic and practical training.

## Correspondence

### N.H.S. Remuneration Compared

SIR,—I enclose a cutting from the local paper reporting a Dundee Executive Council meeting, and from the letter quoted from Dr. Buchanan one can see that even the medical profession do not even appreciate what a pharmacist has to do and how he is paid. I think there must be some scope here for an efficient P.R.O.

H. L. T. ROBERTSON,  
Dundee

[The article from the *Courier and Advertiser*, July 1, mentions that at a meeting of the Dundee Executive Council a letter was received from a Dr. D. W. K. Buchanan. His letter began by comparing payments made to doctors, dentists and chemists in the year ended March 31. It said: Ninety-nine doctors were paid an average of £3,119; forty-seven dentists received an average of £4,966, and fifty-four chemists averaged £5,436. The doctor then commented:

"For many, many years the general public has been under the very mistaken impression that doctors are highly paid. It must be appreciated by all concerned with the betterment of general practice in the National Health Service that general practitioners' remuneration is poor of itself and bears no comparison, for hours of work, training, responsibility, with that of dentists and chemists."

—EDITOR.]

### Two Posers in One

"HERE'S another couple," wrote the sender of the two prescriptions here reproduced. They are, of course, from the same prescriber.

| R

*Handwritten signature* (1)

*Handwritten signature* (2)

### N.H.S. STATISTICS

IN ABERDEEN during March the record number of 102,356 prescriptions were dispensed.

IN ENGLAND during January, 17,347,240 prescriptions (1,962,532 forms) were dispensed at a total cost of £8,911,430. Average total cost per prescription 123.29d.

IN BUCKINGHAMSHIRE during 1964 2,052,411 prescriptions were dispensed at an average cost of 123.87d. each. During January, 1965, 184,821 prescriptions were dispensed costing an average of 130.53d.



# The CHEMIST AND DRUGGIST

For Retailer, Wholesaler and Manufacturer

ESTABLISHED 1859

Published weekly at

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TELEPHONE: CENTRAL 6565

## Overseas Trade in Pharmaceuticals

UNITED Kingdom exports of medicinal and pharmaceutical products during May were valued at £4,885,000, against £5,503,000 in April. The total for division 54 of the Overseas Trade Accounts (H.M. Stationery Office, price 30s.), which includes surgical dressings, was £5,346,000, or some £700,000 less than in April. The various items contributing to that total are given in the table below, together with the values of a number of bulk pharmaceutical chemicals from other divisions.

Australia was again the largest single market for U.K. exports of medicinal products, the value shipped during the month being £323,000. Five other countries took over £200,000 worth. They were: Irish Republic, £262,000; France, £255,000; Nigeria, £239,000; South African Republic, £218,000 and New Zealand, £208,000. The total for the European Economic Community countries was £678,000 and for countries in the European Free Trade Association, including Finland, £706,000. For the first time, E.F.T.A. proved to be a more important market than E.E.C.

Imports of pharmaceutical products during the month were more than £1 million, which must be a record high level for any month—about 20 per cent. were antibiotics. A possible explanation of the jump may be that importers had been waiting for the first reduction in the temporary import surcharge (from 15 per cent. to 10 per cent.) which came into effect on April 27. Nearly half of the May imports originated from West Germany and the United States.

The total imports for the five months, at £3,816,000, was higher by £600,000 than in the corresponding five months of 1964, despite the surcharge. From the figures as published it would appear that the imposition of the surcharge has not had the effect of reducing the volume of imports of medicinal products, but of delaying their shipment and adding to their cost.

## On Drawing a Cheque

WITH the modernisation of the accounting systems of banks by the introduction of computers and calculating machines, and the insertion of metallic figures in cheque books, a subtle change in the legal position of their customers has been brought about.

A recent High Court decision (*Burnett v. Westminster Bank, Ltd.*) should serve as a warning in relation to the drawing of cheques on accounts at banks.

In the above case, the customer had accounts at two branches of the bank, at Bromley and Borough. He was issued with a cheque book in a somewhat new form—not, however, the first of its kind which was issued to him by the branch in question—and his cheque book had printed on its front cover, the name of the customer and words clearly stating that the cheques in the book would be applied to the account of the customer named (the plaintiff in the above case). The book contained the further instruction that the customer was not to *permit the use of the cheques on any other account*. The plaintiff used one of the cheque forms in this book which had been issued by the Borough branch, to draw a cheque on the Bromley branch. For the purpose he substituted the name and address of the Bromley branch for that of the Borough, crossing the latter out.

Later the customer decided to stop the cheque and gave *adequate notice to the Bromley branch* on which the cheque had now in its altered form been drawn, to stop it. No such notice, however, was given to the Borough branch, doubtless because the customer thought it was unnecessary, since the cheque, as altered, was not drawn on that branch. But the bank ultimately paid the cheque, the cheque having made its way to the bank's central computer and it slipped through as the computer was unable to read the ink alterations made on it since they were not magnetic. For the purpose of the decision in the case it was accepted as fact that the customer had seen the writing on the front cover of the book but that he had not read them.

The Court held that sufficient notice had not been given to the customer of the alteration in the previous relationship between him and the bank, and of the new condition which the bank was seeking to introduce that cheques of one branch of the bank could only be used for drawing on the account at that branch. The wording on the old cheques, it should be noted, was merely of an admonitory or advisory character, and did not impose any contractual obligation on the customer. It is true that the bank was held liable for paying out on the cheque and were ordered to credit the customer's account with the amount of the cheque; but when the decision is analysed it will be seen that it hangs on a very fine thread. It turned on the point that the customer did not

EXPORTS		£'000			£'000			£'000
Vitamins in bulk		188	Organo therapeutic glands, etc.*			Sulphonamides in bulk		71
" products		92	" " " in bulk		18	" tablets		52
Antibiotics			" " " products		7	" other products		17
penicillin in bulk		118	Sera and vaccines		169	Proprietary medicines		1,536
" injections		73	Aspirin in bulk		39	Unclassified medicines		765
" tablets, ointments, etc.		223	" products		58	IMPORTS		
other antibiotics in bulk		244	Antihistamines products		55	Vitamins		75
" " products		466	Antipaludics products		61	Antibiotics		209
Alkaloids in bulk		61	Barbiturates in bulk		23	Alkaloids		90
" products		23	" products		24	Glycosides, glands, sera, vaccines		27
Hormones in bulk		182	Medicated confectionery		121	Proprietary and veterinary medicines		432
" products		215	Ointments, liniments*		103	All other		227
Glycosides		13	Surgical dressings		461	*Not elsewhere specified.		

have notice of the new condition set out on the front cover of the cheque book. Had he read the condition stated on the front cover of the book, or had the condition been inserted on the cheque form itself, or had the case been one in which the plaintiff was a new customer opening an account for the first time with the bank and being issued with a cheque book in that form, the decision might have gone in favour of the bank. In any of the above circumstances, the alterations made to the cheque in the view of the Court would not have

prevented the altered cheque from still being, even in its altered form, an authority to the Borough branch, who had issued the cheque book to the customer, to pay out on the cheque.

The importance of the case cannot be too strongly emphasised. Cheques should always be drawn on the branch by which they have been issued, and any instructions given in the cheque book itself as to the manner in which the cheque should be drawn should be strictly observed.

## HOSPITAL PHARMACY FORUM TECHNICAL ADMINISTRATION

BY A HOSPITAL PHARMACIST

IT is obvious from the correspondence columns of the *C. & D.* that not all hospital pharmacists share the views that have been expressed in recent articles in this series. The majority of correspondents are critical of what they appear to think is an overstatement of the case for regarding the pharmacist as a professional scientist. Their views can be summed up by quoting a correspondent who argued that the true rôle of the pharmacist was that of "the buyer, the custodian, the compounder, the controller and distributor of the nation's drugs." That is a point of view widely held within the ranks of hospital pharmacy and it must be respected. In fact there are many experienced hospital pharmacists who believe that modern trends in the manufacture and distribution of medicines will make it increasingly difficult, and eventually impossible, for the pharmacist to gain recognition as a professional scientist like the biochemist and physicist. They see his future rôle as that of a technical administrator responsible to the governing body not only for the pharmaceutical service but for all other goods and services used directly in the treatment of patients. He would, they argue, automatically assume control of such departments as central sterile supply, and of the purchasing and maintenance of medical and surgical equipment. He would act as technical adviser to his committee on a variety of questions where a scientific viewpoint might be desirable and that would necessitate his regular attendance at meetings. He would be regarded as a senior member of the administrative hierarchy and would work in close liaison with the chief executive officer, the group secretary. He would be provided with specialist staff who would take day-to-day responsibility for the various activities under his control, but to his governing body he, and he alone, would be the responsible officer. That, it is suggested, should give him a status at least equal to that of the finance officer.

### *Superficially Attractive*

Superficially it is an extremely attractive proposition but upon closer examination it raises serious problems making it difficult to believe that it could successfully be carried through. Prior to 1948 quite a number of hospital pharmacists had found it possible to achieve the status, if not the pay, of a senior administrator, but today the prospects are much less bright. The Civil Service does not accept the concept of a technical administrator and tends to rely on professional administrators who can, at almost a moment's notice, move from say agriculture to science and technology and take over where their predecessors left off. That concept of administration now pervades the hospital service. The days when senior administrators were recruited from the ranks have virtually disappeared and in a few years' time most of the top jobs will be filled by professional administrators, most of them university graduates. The technologist has no place in

the scheme except that of an adviser on technical questions. His advice will only be sought when the professional administrator thinks it is necessary to have it, and he will be allowed to play no part in the determination of policy. That means that the salary and status of the chief pharmacist must inevitably be somewhat lower than that of the three senior members of the administrative triumvirate, a situation hardly acceptable to those who would like to see him obtain parity of esteem. Those who are inclined to doubt the proposition would do well to compare the salaries of pharmaceutical and administrative staff employed in the Ministry of Health.

### *A Bombshell*

It is also virtually certain that any claim that the pharmacist should be included amongst the senior members of the hospital administrative hierarchy would be strongly resisted both by administrators themselves and by members of governing bodies. So far the idea has only been discussed amongst pharmacists and if it were made public it would undoubtedly come as something of a bombshell. There is thus little chance of achieving the objective in the foreseeable future and pharmacists who accept pharmaceutical responsibilities in the hope that they will ultimately lead to an improvement in their status are likely to find that they will have to wait a very long time. Moreover the acceptance of a number of miscellaneous functions is likely to perpetuate the idea of the pharmacist as a "medical handyman" and in any case the responsibility is almost invariably a delegated one. If the pharmacist purchases medical and surgical equipment he does so as an agent of his administrator, whom the governing body recognises as the person carrying ultimate responsibility. That is bound to hinder rather than help the claim of hospital pharmacists to be regarded and paid as members of an independent profession. It is my belief the cobbler must stick to his last and pharmacists must stick to pharmacy for in the end it can provide the only prospect of obtaining recognition.

### *Not Enough Pharmacy*

It must be admitted however that, today, it is not easy for the pharmacist to practise his speciality, a point made in previous articles and re-iterated by a number of correspondents. It is almost certainly true that there is not now enough pharmacy available to allow each of the 29,000 pharmacists on the Register to have a reasonable share, and in consequence it is not difficult to understand why many hospital pharmacists have felt it necessary to look around for responsibilities which are not strictly pharmaceutical. Certainly there is today much disquiet about the future. Many forward-looking men and women see the factory-produced medicine, which may soon be handed over to the patient in the package in which it was received, as a real threat to their existence. The correspondent who



was "quite happy to deal with the finished product" and to leave such jobs as formulation to the "relatively small number of pharmacists engaged in industry; in the research departments of some schools of pharmacy and by a few chief pharmacists in some of our teaching hospitals" may well be living in a fool's paradise.

### Heart of the Problem

The buying, custody, compounding, controlling and distribution of drugs are functions that can be undertaken quite satisfactorily by personnel who have only an elementary knowledge of their physical, chemical and biological properties. It is not necessary, for instance, to know anything about the spatial configuration of the morphine molecule or of its effect on the sphincter of Oddi in order to purchase morphine or to make a satisfactory batch of morphine suppositories. Yet it is deemed absolutely essential for a pharmacist to have such knowledge before he can be allowed to practise his profession. If, having got it, he rarely finds a use for it and so forgets all about it within two or three years after qualification, someone is soon going to ask why the State should provide the funds necessary to teach it to him. That is the heart of the problem which today faces the hospital pharmacist. Is he to accept the rôle of a member of a learned profession working in a unique field of endeavour, where he is constantly required to make use of and to supplement the knowledge gained during his academic course, or to opt for that of a low grade technical administrator with no hope of moving up into the higher echelons of the hierarchy. The

## Onward from Galen

### ★ CATALOGUE OF ERRORS ★

MISTAKES that can occur between the prescribing of a drug and its administration to a patient in hospital are the subject of an article by Mr. J. Fogg (group pharmacist, Clwyd and Deeside Hospital Management Committee) in *The Lancet* of July 3. An appeal by Mr. Fogg for information from hospital pharmacists in various parts of the country for examples of errors of which they had first-hand knowledge produced an "immediate and disturbing" response. A perusal of the list, which is reproduced in the article, shows a wide variety of sources of error from bad prescribing and writing by doctors through mis-reading and guessing by pharmacists to poor arithmetic and altering of labels by nurses. Mr. Fogg discusses the errors to which each profession is peculiarly prone, pointing out that they are *human* failings and will inevitably arise while the present system of distributing medicine prevails. He feels that if the recommendations of the Aitken Committee had been enforced when first published they might have sufficed to control some errors but in the past few years the increase in number, potency and potential toxicity of drugs has rendered them inadequate. (Among other things the Aitken Committee recommended that, normally only prescribed medicines should be administered by a nurse, no unofficial ward stocks should be kept, standard procedures for ordering ward stocks and checking drugs administered by nursing staff should be adopted and that in all hospitals drugs should be bought, stored and inspected by a pharmacist.) Mr. Fogg alleges that incidents such as the ones described in his list are much commoner than most doctors suppose. His remedy would include frequent refresher courses for nurses and doctors and the adoption by hospitals of the advice of the Aitken Committee and others with the pharmacist being made responsible for the enforcement of a routine for prescribing, dispensing and administration of drugs. For the future he sees hope in the application of automation to medicines distribution—a technique that is already in use in the United States of America but is as yet in its infancy in this country.

choice must be made, although it may not necessarily be his to make. Basically it is a question of whether or not the hospital service can make full use of highly trained pharmacists or whether it can get along satisfactorily with technicians of a lower standard of intellectual ability. There is already an element in retail pharmacy which believes that the present standard of academic attainment is unnecessary and even undesirable under today's conditions—a philosophy that is beginning to find some support in the hospital world. Quite obviously the issue must be squarely faced and the Guild of Public Pharmacists must be congratulated on its decision to appoint a working party to study the whole question and make recommendations for the future. It is an onerous remit and a report cannot be expected within the space of a few months. When it does appear it will inevitably result in controversy but that is all to the good. There is a strong tendency for some pharmacists to assume that their scarcity value will eventually ensure an adequate level of remuneration even if not of status. In fact nothing could be further from the truth. If Parliament thought that pharmacists were being over-trained for the work they were called upon to do it would be a comparatively simple matter to amend legislation so as to give registered dispensing assistants authority to possess and dispense Dangerous Drugs. That is a possibility which must always be kept in mind. The only real scarcity value that a pharmacist can exploit is that of his unique knowledge of the properties of drugs, which must be the rock on which he must build. If his knowledge can be demonstrated to be unnecessary for the effective treatment of patients then the future is indeed black.

## RECENT RESEARCH MECHANISM OF CATHARTIC ACTION

RESULTS of an investigation into the effect of cathartics on active sodium ion transport indicate that the classical concept of cathartic action by simple irritation with enhanced peristalsis must be re-evaluated, state workers at the United States Naval Medical Research Unit No. 2, Formosa. In a recent report (*Nature*, 1965, 206, 1367) they describe how cascara, podophyllum, ricinoleic acid and phenolphthalein all inhibited active sodium ion transport as measured by the short-circuited frog-skin preparation of Ursing and Zehran. Further investigations *in vivo* using a solution containing tracer amounts of sodium 24 placed in ileal loops of adult rabbits under sodium pentobarbitone anaesthesia showed that all four agents inhibited sodium ion transport from gut lumen to plasma. That movement, state the authors, is due in part of active transport. Inhibition and resulting accumulation of sodium ions they suggest would result in accumulation of anions to maintain neutrality at about pH 8 and of water to maintain osmolality at about 300 thus providing a mechanism for cathartic action.

## NEW BOOKS

### Organic Reactions, Volume 14

A. C. COPE (editor-in-chief), *John Wiley & Sons, Ltd.*, Glen House, Stag Place, London, S.W.1. 8 $\frac{3}{4}$  x 5 $\frac{1}{4}$  in. Pp. vi + 498, 105s.

SUBJECTS covered by this volume are the Chapman rearrangement,  $\alpha$ -amidoalkylations at carbon, and the Wittig reaction. Each chapter in the volumes of this series is contributed by an author or authors with experience of the processes surveyed. After a general introduction to the reaction, its mechanism, and the scope and limitations of the method, a description of particular applications is given. Each chapter concludes with a survey of experimental procedures. The information given is summarised in a number of tables, which also include compounds that have been prepared by or subjected to the reaction that were not discussed in the text. References are given throughout. Author and subject indices are provided together with a chapter index to previous volumes.

WONDER DRUG: "The active ingredient of phenacetin, used in such proprietary sedatives as Anadin and Phensic, is panacetamol." (*sic*). *Observer*, December 13, 1964.



### 3. FINAL YEARS OF THE Liverpool Apothecaries' Company

T. D. WHITTET, B.Sc., Ph.D., F.P.S., F.R.I.C., D.B.A.

[Other articles on the Company have appeared in the C. & D., September 8, 1962, p. 278, and March 2, 1963, p. 233]

**A**T a relatively late stage in its history the Liverpool Apothecaries' Company seems to have come under the management of George R. Berry, who issued the following undated circular:—<sup>1</sup>

SIR,—The management of the business of the Liverpool Apothecaries Company having been placed in my hands, and having for many years been engaged in the preparation of the various articles of the Pharmacopœia's of the Colleges, as well as new remedies as they have been brought into use, both here and in London, I am able to guarantee the compounding of every Prescription in the most accurate manner.

All Drugs and Chemicals are tested by myself before their employment either in Dispensing or in the Compounding of medicines. Prescriptions are dispensed under my own immediate superintendence.

The preparations of the active principles of Plants, etc., have for some time engaged my attention, and as they appear to be rapidly advancing into general use among the Profession, I beg leave to subjoin a brief notice of the properties, doses, etc., of some of them, which have not as yet been introduced into the Pharmacopœia; at the same time I add a list of several other medicines, the extended application of which has been limited by the uncertainty of their strength, as made by different Pharmacæutists, and of which I now present a fixed and appropriate dose.

I am, Sir, Your obedient Servant,

GEORGE R. BERRY

Manager, Liverpool Apothecaries' Company, and  
Consulting Chemist to the Manchester and Liverpool Agricultural Society.

Attached to the circular was a list of drugs and preparations with brief notes on their properties, etc. Principal among the items were elatrine and its solution; digitaline and its solution; aloine; jalapine; scammonine; santoline; colchicine and its compounds; medicated pessaries (Professor Simpson's formulas) of zinc, lead, mercury, lead iodide, tannin, alum and catechu, and belladonna; nickel sulphate; cerium oxalate and nitrate; liquor arsenici et ferri iodidi (Dr. James Petrie); quinae et ferri citras; liquor ferri persequinatis dil.; acid nitrate of mercury (Dr. J. H. Bennett's "Treatise on Ulceration of the Cervix Uteri"); acid hydrocyanic (Scheele's strength); æther chloricus; carbazotic acid and carbazotates (Professor Calvert).

The circular concludes

In addition to the active principles described in the Pharmacopœias, rare chemicals, organic and inorganic, are always in stock for experimental and other purposes, and all new remedies employed by British and Foreign observers and discoverers will be obtained or manufactured on the shortest notice. Medicines prepared and kept according to the original formulæ of the profession when desired. The Hall is open at all hours for dispensing, and no exertion will be wanting to secure by accuracy the confidence of the prescriber and the patient.

#### Association with General Apothecaries' Company

The Liverpool Apothecaries' Company appears to have become eventually a branch of the General Apothecaries' Company, which existed from about 1856 until 1959, when it went into voluntary liquidation. Dr. H. G. Howitt, the last chairman of the company, gave the present writer its surviving documents, including several minute books and a manuscript "Deed of Settlement."<sup>2</sup> Dr. Howitt believes the Company originated in Birmingham, but that the business was soon transferred to 49 Berners Street, London, W.1, where a pharmacy existed until the outbreak of the 1939-45 war. The wholesale department in Bishopsgate continued until 1959. Unfortunately the company's first minute book is missing, and there is only a brief reference in book two to the Birmingham branch, at 24 Paradise Street. That branch appears to have failed completely, but there are several references to the Liverpool branch in the volume.<sup>3</sup> In the

Wellcome Medical Historical Library is an undated copy of a broadsheet stating

SOME Gentlemen are about to establish a General Apothecaries Company, for the purpose of supplying the Public and the Medical Profession with Unadulterated Drugs and Chemicals, Invalids' Foods, Condiments, Sanatory (sic) and Domestic Articles; to prepare Physicians' and other Prescriptions, Photographic Chemicals, Etc. Etc. The Company is Provisionally Registered under the Act, 7 and 8 Victoria, cap 110 and the new Limited Liability Act."<sup>4</sup>

The broadsheet is in somewhat similar terms to those used by the Liverpool memorialists. It draws attention to the "almost universal adulteration of Medicine, Chemicals and Condiments" and refers to the evidence given to a Select Committee of the House of Commons in the 1855 session by Drs. Thomson, Hassall, Normandy, John Simon Esq. and Sir J. Gordon." The following passage also occurs:—

THE City Apothecaries' Hall is conducted by a similar Company, but although that Company has given very large profits to the Shareholders, it is so restricted by bye-laws and an antiquated mode of administration, as to fail in meeting the demand of the Public, particularly of the wide spreading population of the various Districts of the Metropolis, and by the country at large.

To encourage possible shareholders the broadsheet stated "The profits made by preparing and selling Drugs and Chemicals are enormous, many articles in daily use in families being sold for ten, and even twenty, times their prime cost." The capital was to be £10,000, made up of twenty-five or more shares of £50. The broadsheet was signed by Dr. Ridge, Gravesend, by John Gardner, M.D., 51 Martime Street, Cavendish Square, and by E. Moss, solicitor, 23 Moorgate Street, City.

#### Arrangements to Avoid Adulteration

The fact that the Liverpool company is not mentioned suggests that possibly the two companies were not then connected. If, on the other hand, a branch was already established in Birmingham then it is surprising that it was not mentioned. Two further circulars issued in 1856<sup>5,6</sup> further emphasised the prevalence of adulterated drugs. Notice was given in one of the circulars of the first establishment of the General Apothecaries' Company (Limited) at 40 Berners Street, and the claim was made that the directors had

made arrangements for obtaining the best and purest Drugs and Chemicals which can be procured. They have fitted up extensive and complete Laboratories and Drug Mills—for grinding the Powders and preparing the vegetable alkaloids, extracts and every form of remedial agents. They have engaged the services of Scientific Chemists, to subject to the strictest testing

#### SOLUTION OF PYROPHOSPHATE OF IRON AND SODA.

See Record, No. 3, p. 12.

Dose, from one to three drachms.

N.B. Must be kept in a cool place.

Prepared in the Laboratories of the  
GENERAL APOTHECARIES' CO.  
(Limited.)

49, BERNERS STREET, LONDON. W.

4, Colquitt Street, LIVERPOOL.

24, Paradise Street, BIRMINGHAM.

A label, more than a century old, of the General Apothecaries' Co., providing the only remaining evidence of the address of the Birmingham branch of the company.



and analysis every substance they sell, and for preparing with Scientific accuracy all compounds. They have opened an extensive establishment for supplying the public with medicines in all forms, preparing Physicians' and other Prescriptions, fitting up medicine chests, and selling all the varieties of invalids' food.

One of these documents was signed by Dr. Ridge, chairman, and Dr. Gardner, managing director. Both were Licentiates of the Society of Apothecaries.

### *Aims of the Company*

The aims of the company were given in a manuscript document dated December 7, 1855, and entitled "Abstract of the Deed of Settlement of the General Apothecaries Company, Ltd." Clause 2 reads

THE business of the Company—To supply the Medical Profession and the Public with unadulterated Drugs and Chemicals, Food for Invalids, Condiments and other sanatory (sic) and domestic articles. To prepare physicians' and other prescriptions and to manufacture and sell articles used in the photographic and other arts and generally to deal in all such articles and substances as are used directly or indirectly in Hygien (sic). The Practice of Medicine and the Arts and Science or are ordinarily sold by Apothecaries, Chemists and Druggists and the makers of medical and surgical instruments or appliances.

The first directors were John James Ridge, Edward Johnson, Henry Hardinge, John Gardner, George Henry Smith and John Charles Atkinson. Ridge, Johnson, Gardner and Atkinson were Licentiates of the Society of Apothecaries.<sup>6</sup>

First mention of the company's Liverpool branch in minute book 2 was on February 18, 1860, when the profit for the half-year was £155 19s. 2d., an increase of £35 10s. 7d. on the previous half-year. The Birmingham branch is recorded as having been closed since the previous meeting, but debts amounting to £197 18s. 4d. were still in course of collection. The company was dissolved and reconstituted on February 18, 1860. Among the shareholders listed for the new company was Joseph Anderson, M.D., manager of the Liverpool company, and now a director. Another name in the list of shareholders is that of John Postgate, probably the pioneer of pure foods and drugs, who started his career as an apothecary at Leeds Public Dispensary and later became a professor of medical jurisprudence in Birmingham.<sup>7</sup>

Among the rules of the General Apothecaries' Company was one that no person carrying on the business of a chemist and druggist could be a shareholder.<sup>2</sup> That is in contrast with the 1836 Constitution of the Liverpool Company, which includes a rule that preference in the purchase of shares should be given to chemists and druggists. In revised rules of the General Apothecaries' Company, printed in 1888, the clause was omitted.<sup>8</sup> The Liverpool branch made a profit each year until the second half of 1870, when a loss was incurred. Further losses were reported each half-year until the liquidation of the branch in 1874. At a meeting on March 27, 1863, a letter was received from Dr. Anderson of the Liverpool branch asking for an increase in remuneration for the directors of that branch and quoting an agreement with the old company. A reply was sent saying that the London board could take no cognisance of any special arrangements that existed or were supposed to exist before the formation of the present company. On June 12 it was recorded that scrutiny of the old minutes showed no sign of any agreement, and Dr. Anderson was asked for a copy. At the company's annual meeting on August 29 the board was authorised to pay to the directors of the Liverpool branch "any such further remuneration as they may deem necessary and advisable."

On November 13, 1866, the Liverpool auditor was reported as having died, and it was resolved that, in future, the auditor of the London office should be sent down periodically. In February 1867 the manager of the Liverpool branch was asked for an explanation of certain charges in the branch's half-yearly accounts, and a similar request was made on July 25. They were addressed to Mr. Hackett, who



### THE GENERAL APOTHECARIES COMPANY (LIMITED).

CAPITAL,—£10,000.

With power to increase to £100,000.

Established under the Act Vics. 18 & 19, cap. 133.

FOR THE PURPOSE OF SECURING TO THE PROFESSION AND THE PUBLIC

A SUPPLY OF UNADULTERATED DRUGS & CHEMICALS,

AND FOR THE

*Preparation of Prescriptions with Scientific accuracy.*

THE Inquiry instituted by the House of Commons during the Session 1855-6, by a Committee, has shown that the practice of adulteration and sophistication of Medicines has prevailed so generally as seriously to affect the character of the profession, and to neutralize the benefits derived by the public from the art of healing.

The unimpeachable testimony of SCIENTIFIC CHEMISTS, went to prove, that when a Physician writes a prescription he is wholly uncertain whether the medicines when

Part of the prospectus of the General Apothecaries' Co.

then appears to have been its manager. (Thomas Hackett was one of those admitted to the original register of pharmacists. He was managing partner of the Apothecaries' Company for thirty-five years, and died at Frieston House, Gainsborough Road, Liverpool, on December 7, 1896.) Apparently explanations were satisfactory, for the accounts were passed by the auditor on August 15. At the same meeting a letter was received from Dr. Anderson, containing complaints about instructions given to the auditor and communications made by the board of directors to Mr. Hackett. The secretary was asked to reply.

### *Strained Relations*

Relations between London and Liverpool were evidently strained, for at a meeting on May 25, 1872, the London directors decided to call an extraordinary general meeting to consider the position of the Liverpool branch. A letter explains the cause:—

YOUR Directors have to acquaint you that the lease of the premises occupied by this Company in Liverpool expires in October next and that they have endeavoured to obtain a renewal of the same but have found difficulties arise in consequence of the Gentlemen who have hitherto taken the principal Management of that Branch having become owners of the property since the said lease was first granted. The present owners decline continuing this Company as Tenant on the same terms and also refuse to propose any other terms. Your Directors feel that they are in a difficulty and think it desirable that these Gentlemen should cease to act on behalf of the Company. Your Directors will explain their views fully at the Meeting and intend to propose the following Resolution: "That this meeting deem it expedient and hereby dismiss from this date from the service of the General Apothecaries Company (Limited) the following Gentlemen:—Dr. Jos. Anderson, 9 Oxford Street, Liverpool, Dr. Jas. Petrie, 13 Upper Parliament Street, Liverpool, Geo. C. Sanderson, Esq., Claughton Road, Birkenhead . . ." (Anderson and Petrie were among the original founders of the Liverpool Company.)

The meeting was held on June 4, and the resolution was carried unanimously, being confirmed by a second extraordinary general meeting, held on June 20, when a letter was received from Mr. Hackett declining to accept management



of the intended new Liverpool branch. The London manager was authorised to obtain a substitute for him as soon as possible. In the meantime, on June 18, the London manager (Mr. Harris) reported having obtained the refusal of premises situated at No. 4 Bold Street, Liverpool; he was authorised to take the premises and to make any alterations he thought necessary. On August 18 he was instructed to dismiss the Liverpool staff so soon as he could dispense with their services, and to engage others. The half-yearly report of December 31, 1870, records that the owners of No. 4 Colquitt Street had not scrupled to start a business in opposition to the company, though still receiving rent at the rate of £300 a year from them. They had hired a shop in Colquitt Street, adjoining No. 4, and induced the Liverpool manager to join them. Despite setbacks the outlook, with the opening of the new premises, was reported as good. The optimism was not justified, for each successive report showed a loss for the Liverpool branch and, in that presented at the meeting of February 22, 1873, the directors reported that they had determined to close the branch and had entered into negotiations to do so.

### Final Reference

The final reference to the Liverpool branch was the liquidation account issued in March 1874. It showed that the net result of the sale of lease, fittings, furniture, stock and book debts was £1,271 14s. 9d., and that the net loss in trading was £2,059 6s. 7d. Thus the Liverpool venture ended after thirty-eight years, though the London Company was to survive for a further eighty-five years.

The Hall remained in existence until 1941. O'Leary<sup>7</sup> in

1934 stated that it fell on evil times and was then used by the Burlington Rooms and Cafe, Ltd. John Rae in a personal communication has given the following account of its last years:—

I REMEMBER the Apothecaries' Hall and it was a very fine building. When I first knew it, it was used as a cafe and afterwards as a warehouse by Mortons who were very high-class furnishers in Bold Street, but closed down during the war. In the May blitz of 1941 the old Apothecaries' Hall was completely destroyed by a land mine, and the site is now occupied by one of Wetherall's factories.

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The author is grateful to Mr. John Rae, F.P.S., Dr. H. G. Howitt, M.R.C.S., L.R.C.P., L.M.S.S.A., and the City of Liverpool Library for information and materials on which these articles were based.

## SHOPFITTING NOTES AND DISPLAY

**Shelving.**—Pharmacists who are about to revise the lay-out of their shop premises are recommended to write to Savage & Parsons, Ltd., Watford, Herts. for their literature on Spur gondolas.

**Cheaper Shopfronts.**—Beanstalk Shelving, Ltd., Chichester, Sussex, claim that by using prefabricated basic components they can often achieve 20 per cent. saving on cost. The company offer a choice of materials and over 500 designs. They arrange to obtain the necessary planning permission and will also plan and undertake shop layouts.

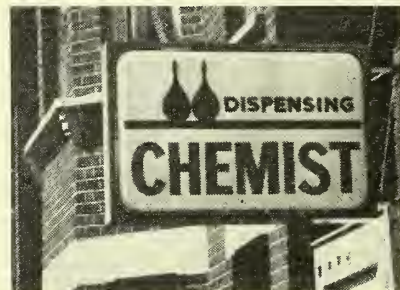
**Light Enough for Ladies.**—Durlston display units, supplied by Durlston Designs, Ltd., 46 Durlston Road, Kingston, Surrey, are stated to be so light to handle as to be easily erected by ladies. Fixing requires only a screw-driver and pliers and is claimed to give an "immensely strong" structure easily dismantled for an alteration in the display.

**Air Humidifier.**—The Felvic air humidifier is electrically operated and combines robust construction with an

attractive design. Of Swiss manufacture it has a water-carrying capacity of 6 pints. An electrically operated turbo type impeller produces a steady flow of micron atomized water particles. The unit is offered in the U.K. by Felvic Marketing and Sales Co., Ltd., 70 Carolina Road, Thornton Heath, Surrey, at £12 12s.

**Display Sets in Wire.**—Middlehurst, Ltd., Brock Lane, Maidenhead, Berks, report sales "beyond our most optimistic forecasts" of their Helter Skelter display sets, enabling the company to organise production on a "semi-mass" basis at lower prices. The Helter Skelter occupies a floor area of 25 x 25 in., is 63 in. high to top of centre pole, has an overall diameter of 23 in., and is provided with six semi-circular baskets, each 6½ in. deep. The baskets are polythene coated and the base of the stand is finished in red or blue stove enamel. Also available from the company is a Tumble bin (No. JN/102) with a "new look," strong and durable, top diameter 17 in., height 29 in. The white bin is available on black or red stand.

**Readily Adaptable.**—An economical ready-made illuminated sign has been made available by the Neoflo Group of Companies, 126 Putney Bridge Road, London, S.W.15. Known as the Slimline, the signs have been designed to give a modern appearance. During the day, each sign has clear-cut definition, and at night, maximum illumination. Signs can be installed in either the "portrait or landscape" positions. The Slimline major is 36 by 24 in., and the Slimline minor is 36 by 14 in. Each sign consists of a lead coated sheet steel case with square outer and



curved inner corners. There are face panels of moulded Perspex. The lettering and, where applicable, the designs, are cut from coloured Perspex or Oroglas, and applied to the panels. The sign is illuminated by fluorescent white cold cathode tubing. Transformers that operate the tubing are housed within the sign case. The metal-work is stove enamel finished, there being a choice of six standard colours, all hammer finish—sea foam green, lilac, steel blue, gunmetal, bronze, and burgundy, although the company will, in fact, provide any colour of enamel finish. The signs may be fixed direct to a wall or by stand-off bracket or hung by hooks, bracket and stay arms. Slimline signs may be installed, maintained by quarterly visits for cleaning and repairs, and also given a 24-hour emergency service on a rental maintenance basis which also covers comprehensive insurance; or alternatively may be purchased outright, the cost varying according to location and installation details. Quotations include any necessary surveys, drawings and application for Town and Country Planning consent.





# AGRICULTURAL CHEMICALS

## Recommendations for safe use

THE Ministry of Agriculture, Fisheries and Food has issued recommendations for safe use in Great Britain for a number of products. The Ministry states the use of paraquat garden herbicide (Weedol) should not present a hazard to home gardeners provided the following precautions appear on the label:—

KEEP OFF SKIN.  
AVOID INHALING SPRAY.  
WASH AFTER USE.  
KEEP AWAY FROM PETS.  
STORE IN A SAFE PLACE AWAY FROM CHILDREN.

The recommendations are to be reviewed at the end of the 1965 season.

The recommendations in respect of the herbicides cycluron (*N*-cyclo-octyl-*NN*-dimethylurea) and 2-but-3-ynyl-*N*-(3-chlorophenyl) carbamate (BiPC) require the following should appear on the labels:—

### Solid or liquid concentrate

Can be irritating to the skin, eyes, nose and mouth.

WEAR RUBBER GLOVES when handling the concentrate.

WASH CONCENTRATE from skin or eyes immediately.

AVOID WORKING IN SPRAY MIST.

WASH HANDS AND EXPOSED SKIN before meals and after work.

HARMFUL TO FISH. Do not contaminate ponds, waterways and ditches with chemical or used container.

STORE TIGHTLY CLOSED in a safe place. WASH OUT CONTAINER THOROUGHLY and dispose of safely.

Both cycluron and BiPC may be used as a pre-crop emergence or post-crop emergence herbicide on any edible crop. Again the recommendations are to be reviewed at the end of the 1965 season.

The Ministry state no special precautions appear to be necessary for the protection of the operator when using thiabendazole, available in Thibenzole feed-pellets. Provided that thiabendazole is administered to cattle at a rate not in excess of 100 mgm./kg. or to sheep at a rate not in excess of 66 mgm./kg. such use of thiabendazole as an anthelmintic in cattle, including lactating cattle, or sheep should not present a hazard to consumers.

The growth regulator, tributyl-2,4-dichlorobenzyl phosphonium chloride, contained in Phosfon liquid and Phosfon 1-5 are to be labelled:—

### Liquid concentrate

Phosfon can be irritating to the skin and eyes. WEAR RUBBER GLOVES when handling the concentrate.

WASH CONCENTRATE from skin or eyes immediately.

WASH HANDS AND EXPOSED SKIN before meals and after work.

### Solid ready for use

WEAR RUBBER GLOVES when handling the solid.

WASH ANY PARTICLES from skin or eyes immediately.

WASH HANDS AND EXPOSED SKIN before meals and after work.

DO NOT CONTAMINATE PONDS, WATERWAYS AND DITCHES with chemical or used container.

STORE TIGHTLY CLOSED in a safe place. WASH OUT CONTAINER THOROUGHLY and dispose of safely.

The Ministry state the use of the compound on potted chrysanthemums

grown under glass is acceptable but there is insufficient information to enable recommendations to be made on the safe use of the chemical on any other crops.

The labels on *N*-dimethylamino succinamic acid (a growth regulator), contained in B-nine, are required to include the following:—

WASH HANDS before meals and after work. DO NOT CONTAMINATE PONDS, WATERWAYS AND DITCHES with chemical or used container.

STORE TIGHTLY CLOSED in a safe place. WASH OUT CONTAINER THOROUGHLY and dispose of safely.

The use of the compound on a non-edible crop is acceptable but the Ministry state there is insufficient information to enable recommendations to be made for the safe use of the chemical on any edible crop.

No special precautions appear to be necessary for the protection of operators when using furazolidone offered for veterinary use as contained in Nef-tin piglet medicator. The Ministry point out that tissues from piglets which have been treated with furazolidone at the recommended rate should not be used for human consumption unless one week has elapsed between the last treatment and slaughter.

It is considered that the organophosphorus insecticide and acaricide demeton - S - methyl (S - [2 - (ethylthio) ethyl] dimethyl phosphorothiolate) should be included in the Agriculture (Poisonous Substances) Regulations as a Second Schedule, Part III substance. The Regulations require an operator to wear protective clothing in certain conditions. Other precautions that should appear on the label are:—

WASH GLOVES thoroughly after use, especially the insides.

REMOVE heavily contaminated clothing immediately.

WASH CONCENTRATE from skin or eyes immediately.

AVOID ALL CONTACT BY MOUTH.

AVOID WORKING IN SPRAY MIST.

WASH HANDS AND EXPOSED SKIN before eating, drinking or smoking and after work.

Demeton-S-methyl is an organophosphorus compound.

DO NOT USE demeton-S-methyl if under medical advice NOT to work with such compounds.

HARMFUL TO LIVESTOCK. Keep all livestock out of treated areas for at least two weeks.

DO NOT USE ON ANIMALS.

HARMFUL TO GAME, WILD BIRDS AND ANIMALS.

HARMFUL TO BEES. Do not apply at flowering stage. Keep down flowering weeds.

HARMFUL TO FISH. Do not contaminate pond, waterways and ditches with chemical or used container.

STORE TIGHTLY CLOSED in a safe place under lock and key.

WASH OUT CONTAINER THOROUGHLY and dispose of safely.

It is recommended that the label for trichlorophon, an organophosphorus insecticide (dimethyl 2,2,2-trichloro-1-hydroxyethyl phosphonate) should include the following precautions:—

### Solid concentrate

KEEP OFF SKIN.

AVOID INHALING SPRAY.

WASH AFTER USE.

KEEP AWAY FROM BIRDS, FISH AND PETS.

STORE IN A SAFE PLACE AWAY FROM CHILDREN.

DO NOT PICK PRODUCE within two days of treatment.

Dust ready for use

KEEP OFF SKIN.

AVOID INHALING DUST.

WASH AFTER USE.

KEEP AWAY FROM BIRDS, FISH AND PETS.

STORE IN A SAFE PLACE AWAY FROM CHILDREN.

DO NOT PICK PRODUCE within two days of treatment.

The Ministry state that Dimexan (di(methoxythiocarbonyl) disulphide), a herbicide, should be labelled:—

### Liquid concentrate

Dimexan can be irritating to the skin, eyes, nose and mouth.

WEAR RUBBER GLOVES when handling the concentrate.

WASH CONCENTRATE from skin or eyes immediately.

AVOID WORKING IN SPRAY MIST.

WASH HANDS AND EXPOSED SKIN before meals and after work.

DANGEROUS TO FISH. Do not contaminate ponds, waterways and ditches with chemical or used container.

STORE TIGHTLY CLOSED in a safe place. WASH OUT CONTAINER THOROUGHLY and dispose of safely.

Its use as a pre-crop emergence herbicide on any edible crop should not present a hazard to consumers.

In a number of cases the Ministry point out that where compounds are formulated with other compounds for which additional recommendations are made, care should be taken to ensure labels are prepared accordingly.

### APPROVED PRODUCTS

THE Agricultural Departments of the United Kingdom announce that the following products have been approved under the Agricultural Chemicals Approval Scheme.

### Fungicides

COPPER with MANEB WETTABLE POWDERS; Peman (Plant Protection, Ltd.).

### Herbicides

MECOPROP POTASSIUM AND SODIUM SALT FORMULATIONS; Bugges C.M.P.P. selective weed-killer concentrate (Bugges Insecticides, Ltd.). 2,4,5-T ESTER FORMULATIONS; Trioxone 100 (Plant Protection, Ltd.).

DICHLOROPROP with 2,4-D AMINE SALT FORMULATIONS; Hormatox Plus (Baywood Chemicals, Ltd.). Profarma 2,4-DP+2,4-D (Profarma, Ltd.).

## WORLD TRADE

**Returned to Private Owners.**—Syria has returned fifteen pharmaceutical firms to their private owners by a decree issued recently. They were among forty firms in Damascus and Aleppo nationalised on February 18.

**New Acetic Acid Process.**—The Weyerhaeuser Co. has announced that it has developed a new process for making acetic acid from sulphite pulp mill liquors. It will use the process at its sulphite mill at Cosmopolis, Washington, United States.

**Argentine Veterinary Drug Imports.**—Argentine Central Bank Circular R.C. No. 230 stipulates that certified imports of drugs, medicines and raw materials used for veterinary purposes will be exempt from the 75 per cent. prior deposit requirement except in respect of advance payments or purchases of forward exchange.



## TRADE REPORT

The prices given are those obtained by importers, or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are in many instances augmented before wholesale dealers receive the goods into stock. Crude drugs and essential oils vary greatly in quality and higher prices are charged for selected qualities.

LONDON, JULY 7: The CRUDE DRUGS market was inactive during the week and no major price changes occurred.

Information about new crops seems to be received later each year and news of several items is awaited. Meanwhile, because of lack of offers at origin, most prices were held at previous levels, despite the slowness in demand. African GINGER was lower by 5s. a cwt. in both positions. Spot MENTHOL was down by sixpence per lb. and Italian SQUILL by 5s. a cwt. at origin and on the spot. On the other hand, SENEGA for shipment rose by sixpence per lb. Among AROMATIC SEEDS, Moroccan CUMIN was dearer at 247s. 6d. per cwt., c.i.f. Australian light-amber HONEY was dearer by 5s. per cwt., and the market was expected to continue to improve. The medium-amber prices were firm at former levels but are expected to rise in the next few weeks.

Among ESSENTIAL OILS, the downward trend in the price of CITRONELLAS continued. Lack of demand for GRAPEFRUIT caused holders to shade their prices. Sicilian LEMON and TANGERINE were unchanged with demand reported quiet. Chinese PEPPERMINT was down three pence per lb. in both positions and the Brazilian by three-ha pence on the spot. The new Brazilian spot rate was three pence lower than offers from origin. Mysore SANDALWOOD was quoted at 108s. per lb. The firm trend in CARDAMOMS caused the oil to advance 75s. lb.

No changes were advised by manufacturers of PHARMACEUTICAL or FINE CHEMICALS during the week.

### Pharmaceutical Chemicals

Prices below may be subject to temporary import surcharge.

AMIDOPYRIN. — Per lb. 16s. 8d. for 5-cwt. lots; 1-cwt., 17s. 5d.

AMPHETAMINE. — BASE is 150s. per kilo in 5-kilo lots and SULPHATE, 120s.; DEX-AMPHETAMINE, 270s. per kilo for 10 kilos.

AMYLOBARBITONE. — B.P.C. is 74s. per kilo for less than 25-kilo lots. SODIUM is 10s. per kilo more.

BARBITONE. — SODIUM derivative is 46s. 8d. per kilo for 50-kilo lots.

BENZYL BENZOATE. — B.P. in 1-ton lots, 4s. 6d. per lb.

BROMIDES. — Crystals (per kilo): —

	Under 50 kilos	50 kilos
POTASSIUM*	s. d. 6 3	s. d. 5 8
SODIUM	6 3	5 8
AMMONIUM	7 2	6 7

\*Powder is fourpence per kilo more.

BRUCINE. — In 1,000-oz. lots, ALKALOID is 19s. per oz. and SULPHATE, 17s. 6d. per oz.

BUTOBARBITONE. — B.P.C., 80s. per kilo for 25-kilo lots and over.

CANTHARIDIN. — Per oz, 222s. 6d. for 4-oz. lots.

CARMINE. — One-cwt. lots are 180s. per lb.

CHLOROCRESOL. — Pharmaceutical quality, 7s. 7d. per lb. (1-cwt. lots).

CHLOROFORM. — 35-litre lots in winchesters, B.P., 11s. 5½d. per litre; in drums, 10s. 7d.; 175-litre lots, 11s. and 10s. 1½d.

CHLOROPHYLL. — Water-soluble, 100 per cent. (medicinal grade), 250s. per lb.; oil soluble, 25s. per lb.

CHLOROXYLENOL. — B.P.C., 5s. 3d. per lb. for 5-cwt. lots; 5s. 1d. per lb. for 1-ton lots.

CITRATES. — Per kilo: —

	50 kilos	250 kilos	1,000 kilos
	s. d.	s. d.	s. d.
SODIUM†	5 4	4 10	4 8
POTASSIUM†	5 7	5 1	4 11
IRON AND AMMONIUM*	9 8	9 4	9 1

COCAINE. — 35-oz. lots HYDROCHLORIDE, 105s. per oz., ALKALOID, 115s. per oz. Subject to D.D.A. Regulations.

CORTISONE. — One-kilo lots, ACETATE 4s. 6d.; HYDROCORTISONE ACETATE or ALCOHOL, 4s. 6d. per gm.

CREAM OF TARTAR. — Home-trade: — One-ton lots, 241s. per cwt.; 10-cwt., 242s.; 5-9-cwt., 243s.; 2-4-cwt., 244s.; 1-cwt., 245s. (If supplied in bags deduct 5s.)

CREOSOTE. — B.P.C., 1959, ex beechwood, 100 kilos, 15s. per kilo; 500 kilos, 14s. 6d.

CRESOL. — B.P. quality, 7s. 9d. per gall. in 5-gall. lots.

CYCLOBARBITONE. — Under 25 kilos: B.P., 73s. per kilo. CALCIUM, 80s. per kilo.

DICOPHANE. (DDT.) — One-ton lots, 70-74 per cent., 2s. 3d. per lb.

DIENOESTROL. — B.P. is 1s. per gm. for 5-kilo lots.

DITHRANOL. — B.P. offered at 6s. 9d. per oz. for 7-lb. lots.

EPHEDRINE. — ALKALOID nominally 6s. 6d. per oz.; SULPHATE, 4s. 6d. and HYDROCHLORIDE, 4s. 3d. per oz.

ERGOMETRINE. — MALEATE, B.P., 152s. per gm. for 5-gm. lots; ERGOTAMINE TARTRATE, 29s. 6d. per gm. for 100-gm. lots.

ERGOTOXINE. — ETHANESULPHONATE, 10-gm. lots, B.P. '32, 60s. per gm. B.P.C. '49 72s. 6d.

ETHER. — Per lb. in winchester: B.P. TECHNICAL, B.S.S., 5-cwt., 2s. 9d.; (4s. 4d. per litre). In drums the price is 2s. 1d. per lb. ANAESTHETIC, B.P., 6-cwt., 3s. 1½d.; 10-cwt., 3s. 7½d.

GLYCEROPHOSPHATES. — Per kilo in 50-kilo lots: CALCIUM, B.P.C., 28s. 2d.; B.P.C., 35s. 5d.; MANGANESE, N.F.X., 49s. 7d.; POTASSIUM, 50 per cent., B.P.C., 8s. 6d.; SODIUM, 50 per cent., B.P.C., 5s. 11d. and powder, B.P.C., 1949, 18s. 8d.; GLYCEROPHOSPHORIC ACID, 20 per cent., 10s. 8d.

HEXOBARBITONE. — 25-kilo lots or over, 115s. per kilo.

HOMATROPINE. — 16-oz. lots (per oz.): ALKALOID, 30s. 6d.; HYDROBROMIDE, 24s. 6d.; HYDROCHLORIDE, 28s. 6d.; METHYLBROMIDE, 25s. 6d. 1-oz. rates are 1s. 6d. per oz. above those rates.

HYOSCINE HYDROBROMIDE. — Per oz. 102s. and per kilo, 3,595s.

HYPOPHOSPHITES. — Per kilo: —

Quantity	1 kilo	12.5 kilos	50 kilos
	s. d.	s. d.	s. d.
CALCIUM, B.P.C.	17 2	16 1	15 1
IRON, B.P.C.	34 10	33 7	32 5
MAGNESIUM	29 3	28 2	27 2
MANGANESE, B.P.C.	35 3	33 11	32 9
POTASSIUM, B.P.C.	23 1	22 5	21 4
SODIUM, B.P.C.	19 2	18 1	17 1

IODINE. — Resublimed in less than 50-kilo lots, 30s. 6d. per kilo; 50 kilos and over, 29s. 9d. Minimum delivered rates for CRUDE is 18s. 7d. per kilo.

IODOFORM. — Powder (per kilo), 55s. 3d. in 50-kilo lots; less than 50-kilos, 56s. 9d. Crystals are 6s. 6d. per kilo more.

MAGNESIUM CARBONATE. — One-ton lots: LIGHT, 129s. per cwt.; HEAVY, 148s. per cwt.

MAGNESIUM CHLORIDE. — Crystals in 50-kilo kegs, 5s. 6d. per kilo.

MAGNESIUM HYDROXIDE. — B.P.C., 1-cwt. lots, 3s. 11d. per lb.; 1-ton, 3s. 6d. per lb.

MAGNESIUM OXIDE, B.P. — LIGHT, 1-cwt. lots, 3s. 10d. per lb., 1-ton, 3s. 7d.; HEAVY, 5s. 10d. per lb.

MAGNESIUM PEROXIDE. — B.P.C. (15 per cent.), 3s. 11d. per lb. for 1-cwt. lots.

MAGNESIUM PHOSPHATES: DIHYDROGEN, 50-kilo lots, in kegs, 8s. 9d. per kilo; TRIBASIC, in sacks, 9s. 8d. kilo.

MAGNESIUM SULPHATE. — B.P. in minimum 1-ton lots from £25 5s. to £35 per ton. Exsiccated, £58 per ton.

MAGNESIUM TRISILICATE. — (Per lb.). Under 5-cwt. lots, 4s. 1d.; 1-ton, 3s. 4d.

METHYL PHENOBARBITONE. — B.P.C., 78s. per kilo for less than 25-kilo lots.

METHYL TESTOSTERONE. — Per kilo, £95.

NARCOTINE. — ALKALOID and HYDROCHLORIDE, 11s. 4d. per oz. (399s. 6d. kilo) for under 35-oz. lots. Containers below 1-kilo charged 1s. 6d. per container.

PENTOBARBITONE. — 25-kilo lots and over are 107s. 6d. per kilo.

PETHIDINE HYDROCHLORIDE. — Subject to D.D.A. Regulations, 5-kilo lots, 300s. per kilo.

PHENOBARBITONE. — Spot rates 50-kilo lots, 47s. 6d. per kilo. SODIUM SALT, 54s. 6d.

PHOLCODINE. — 8-oz. lots, 95s. 9d. per oz. (3,377s. per kilo).

PHTHALYL SULPHATHIAZOLE. — Five-kilo lots, 31s. per kilo.

QUINALBARBITONE. — Sodium salt is 110s. per kilo for 25-kilos and over.

QUINIDINE. — Short. SULPHATE, 2,063s. 11d. per 100-oz. for lots of 500-oz. and over; less than 500-oz. are 2,181s. 8d. per 100-oz. ALKALOID, crystals, 2,701s. 4d. and 2,855s. 1d.; precipitated, 2,733s. 1d. and 2,889s.

QUININE. — Short, 1,000-oz. lots per oz.: SULPHATE, B.P., 1963, 11s.; BISULPHATE, 11s. 2½d.; DIHYDROCHLORIDE, 15s. 4d.; HYDROCHLORIDE, 14s. 6d.

SAL PRUNELLA. — Balls, 3s. 9d. per lb. in 1-cwt. lots.

STRYCHNINE. — 100-oz. lots; ALKALOID, 12s. per oz. SULPHATE and HYDROCHLORIDE, 10s. 6d.

SUCCINYL SULPHATHIAZOLE. — Five-kilo lots, 32s. 6d. per kilo.

SULPHACETAMIDE. — 50-kilo lots, 54s. per kilo; SODIUM, 55s.

SULPHADIAZINE. — Five-kilo lots, 65s. per kilo; 50-kilo lots, 60s.

SULPHADIMIDINE. — 50-kilo lots are 60s. per kilo.

SULPHAGUANIDINE. — 100-kilo lots, about 19s. 6d. per kilo.

SULPHAMETHIAZOLE. — Per kilo, 5-kilo lots, 100s.; 50-kilos, 95s.

SULPHANILAMIDE. — 50-kilo lots, 13s. 1d. per kilo.

SULPHAPYRIDINE. — Five-kilo lots, 120s. per kilo.

THEOPHYLLINE. — 12½-kilo lots; ALKALOID ANHYDROUS, 32s. 3d. per kilo and B.P., 33s. 3d.; AMINOPHYLLINE, 29s. per kilo, 12½ kilos, 31s. per kilo.

UREA. — Pharmaceutical grade, £59 15s. per ton in 1-cwt. bags non-returnable; technical quality, £41 5s. per ton (4-ton lots).



## Crude Drugs

ACONITE. — Spot, Spanish, *napellus*, 2s. 4d. per lb.; shipment, 2s. 3d., c.i.f.

AGAR. — Kobé No. 1, 13s. per lb. in bond; shipment, 12s. 6d., c.i.f. Spanish scarce on the spot at 15s. 6d., duty paid, nominal.

ALOE. — Primes, 270s. per cwt. spot, shipment, 265s., c.i.f. Curaçao, spot, 265s.; 260s., c.i.f.

ANISE. — Chinese, STAR, 152s. 6d. per cwt. spot, duty paid; f.a.q. for shipment, 115s., c.i.f.

ANNATTO. — Madras, f.a.q. seed, spot, 300s. per cwt.

BALSAMS.—Per lb.: CANADA: 24s., spot. COPAIBA: B.P.C. 11s. 6d. PERU: 23s. 6d., afloat; shipment, 22s., c.i.f. TOLU: B.P., from 10s. 6d. to 27s. 6d.

BAY.—LEAVES, 1s. 9d. per lb., spot.

BELLADONNA.—LEAVES, 6s. per lb., nominal, spot, ROOT, 1s. 8d. per lb., spot; shipment, 1s. 7d., c.i.f.

BENZOIN.—Sumatra block spot from £20 to £40 per cwt. as to quality.

BUCHU.—Spot, 4s. 9d. per lb.

CALAMUS. — ROOT, 100s. per cwt., spot, 87s. 6d., c.i.f.

CAMPHOR. — B.P. powder for shipment, 5s. 3d. per lb., c.i.f.; spot, 6s. 6d., duty paid.

CARDAMOMS. — A'eppe greens, spot, 19s. per lb.; shipment, 21s. 6d., c.i.f.

CASCARA. — Spot, 225s. per cwt.; shipment, 218s., c.i.f.

CASSIA.—*Fistula*, 105s. per cwt. spot; *linea*, whole shipment, 202s. 6d., c.i.f.; selected broken, 192s. 6d., c.i.f.

CHAMOMILE.—Belgian flowers scarce at from 20s. per lb., upwards spot; German type, 7s. 6d.

CHERRY BARK.—Thin natural, 2s. 2d. per lb., shipment, 2s., c.i.f.

CHILLIES. — Zanzibar, spot, 320s. per cwt.; shipment, 310s., nominal.

DIGITALIS.—*Purpurea* leaves, 2s. 6d. per lb.

ELEMI. — Spot, 1s. 8d. per lb.; shipment: new crop, 1s. 5d., c.i.f.

ERGOT. — Portuguese, spot, 9s. 9d. per lb.; shipment, 9s. 6d., c.i.f.

GENTIAN. — Root, 190s. per cwt. spot; shipment, 185s., c.i.f.

GINGER. — (Per cwt.) Nigerian, July-August shipment (c.i.f.), split, 85s.; peeled, 210s. African, spot, 230s. per cwt.; shipment, July-August, 220s., c.i.f. Jamaican No. 3, spot, 325s., shipment, 280s., c.i.f. Cochinchina, spot, 300s., July-August shipment, 312s. 6d., c.i.f.

GUM ACACIA.—Kordofan cleaned sorts, 162s. 6d. per cwt., spot; shipment, 148s., c.i.f.

HONEY. — (Per cwt.) Australian light amber, spot, 120s. to 125s.; and medium amber, 110s. to 115s.; Argentine, 110s. to 115s.; Canadian, 175s. to 180s.; Mexican spot, 115s. to 120s.

IPECACUANHA. — High testing material short on spot. Matto Grosso for shipment, 54s. 6d. per lb.; c.i.f. and landing, 55s. Costa Rican, 74s. spot nominal; shipment, 71s. 6d., c.i.f. Colombian, 54s. 6d., c.i.f. for shipment.

KARAYA.—No. 1 f.a.q. gum, spot, 415s.; No. 2, 300s. per cwt.

KOLA NUTS.—African, spot, 6½d. per lb., nominal; shipment, 5½d., c.i.f.

LANOLIN. — ANHYDROUS B.P. is from 2s. 6d. to 2s. 10d. per lb. in 1-ton lots delivered free drums. Commercial grades from 1s. 9d.

LEMON PEEL.—Spot, 1s. 9d. per lb.; partially extracted, 1s.

LINSEED. — Whole, 72s. 6d. per cwt.; crushed, 110s.

LIQUORICE. — Natural root: Russian, 67s. 6d. per cwt.; Anatolian, 57s. 6d.; Anatolian decorticated, 170s. Block juice: Anatolian, 210s. to 220s. per cwt.; Italian stick from 395s. to 460s. per cwt.

LOBELIA.—Dutch on the spot offered at 6s. 3d. per lb.

MACE.—Whole pale blade, 14s. per lb. for forward delivery.

MENTHOL.—(Per lb.). Chinese for shipment, 29s., c.i.f.; spot, 30s., in bond. Brazilian for shipment, 30s., c.i.f.; spot, 33s., duty paid and 30s. 6d. in bond.

MERCURY. — Spot nominally £265 per flask of 76-lb. ex warehouse.

NUTMEGS.—(Per lb.). West Indian, spot, 80's, 9s.; 110's, 7s. 8d.; sound unsorted, 7s.; defectives, 5s. 6d. East Indian for shipment, 80's, 8s. 6½d.; 110's, 6s. 11d., b.w.p. 4s. 4½d., c.i.f.

NUX VOMICA.—Cochin, 95s. per cwt. on the spot; shipment, 85s., c.i.f.

ORANGE PEEL. — Spot: Sweet ribbon, 1s. 8d. per lb., bitter quarters: West Indian, 10½d.; Spanish, 1s. 9d.

PEPPER. — White Sarawak spot, 3s. 1d. to 3s. 3d. per lb.; shipment, 3s. 1d., c.i.f. Black Sarawak, 3s. spot; shipment, 2s. 7½d., c.i.f. Black Ma'abar, spot, 3s. 5d. per lb.; shipment, 375s. per cwt., c.i.f.

PODOPHYLLUM.—Spot per cwt.: *Emodi*, 235s.; 220s., c.i.f.

QUILLAIA.—For shipment, 135s. per cwt. c.i.f.; spot, 125s.

RHUBARB.—Manufacturing grades offered at from 5s. to 8s. 6d. per lb., other grades at 12s. 6d. and 15s. 6d.

SAFFRON.—Mancha superior spot, 625s. per lb.; Rio, 600s.

SARSAPARILLA. — Jamaican native red spot, 3s. 6d. per lb.; shipment, 3s., c.i.f.

SEEDS. — (Per cwt.) ANISE.—Turkish, 200s., duty paid; Spanish, 255s., duty paid. CARAWAY.—Dutch, 137s. 6d., duty paid. CELERY.—Indian, 175s., spot; July-August shipment, 150s., c.i.f. CORIANDER.—Moroccan, 57s., duty paid; shipment now quoted at 44s. 6d., c.i.f. Rumanian whole seed, 52s. 6d., c.i.f. CUMIN.—Indian, 300s.; Moroccan, 350s., duty paid; shipment Indian, 255s., c.i.f.; Moroccan, dearer at 247s. 6d., c.i.f. DILL.—Indian, 120s., spot; shipment, 90s., c.i.f. FENNEL.—Chinese, 130s., duty paid; shipment Chinese, 112s. 6d., c.i.f.; Indian, 135s., c.i.f. FENUGREEK.—Moroccan, 45s., duty paid; shipment, 38s., c.i.f. MUSTARD.—English, 65s. to 85s., according to quality.

SENEGA.—Spot, 19s. per lb.; new crop, July-August shipment, 18s., c.i.f.

SENNA. — (Per lb.). Tinnevely LEAVES spot: Prime No. 1, 2s.; No. 3, f.a.q., 1s. 1d. Shipment: No. 3, 1s., c.i.f. PODS: Tinnevely hand-picked, 1s. 8d. to 2s. as to quality; spot, manufacturing, 1s. 1d.; shipment, 11d., c.i.f. A'alexandria PODS: Hand-picked from 7s. to 8s.; manufacturing, forward, 2s. 6d., c.i.f.

SQUILL. — Italian, spot, 180s. per cwt.; shipment, 165s., c.i.f.

STYRAX.—Spot, 13s. 6d. per lb.; shipment, 13s. 3d., c.i.f.

TURMERIC. — Madras finger on spot is 127s. 6d. per cwt.; July-August shipment quoted at 100s., c.i.f.

VANILLIN. — (Per lb.). 5-cwt. lots, 21s. 6d.; 1-cwt., 21s. 9d.; 56-lb., 22s.; small quantities, 22s. 6d. All plus temporary import charge.

WAXES. — (Per cwt.) BEES' — Dar-es-Salaam, 445s.; shipment, 415s. Sudanese, spot, 400s., in bond; shipment, 385s., c.i.f. CANDELILLA, spot, 465s.; forward, 460s. landed. CARNAUBA, fatty grey, spot, 320s.; shipment, 295s., c.i.f.; prime yellow, spot, 660s.; shipment, 595s., c.i.f.

WITCH HAZEL LEAVES.—Spot quotations are 2s. 2d. per lb.; shipment, 2s. 1d., c.i.f.

## Essential and Expressed Oils

ALMOND. — Imported sweet oil is 7s. per lb. spot.

AMBER.—Rectified on the spot, 2s. per lb.

ANISE. — Chinese, 9s. 6d., spot, shipment, 9s. 8d., c.i.f.

BAY.—West Indian, 35s. per lb. on the spot.

BERGAMOT.—Spot quotations for best oil are from 100s. per lb.

BIRCH TAR.—Rectified, 3s. per lb.

BOIS DE ROSE. — Brazilian spot, from 16s. 6d.; shipment, 16s. 3d., c.i.f.

BUCHU. — Spot, from 280s. to 360s. per lb.

CADE. — Spanish from 2s. per lb. for drum lots.

CAJUPUT.—Spot from 11s. per lb.

CAMPHOR, WHITE. — Chinese for shipment, 4s. 6d., c.i.f., per kilo; spot, 2s. 9d. lb., duty paid.

CANANGA.—Spot from 45s. per lb.

CARDAMOM.—English distilled, 450s. per lb.

CASTOR.—Home produced B.P. oil, spot, £127 per ton naked ex mill (2-ton lots).

CELERY SEED. — Quotations are from 120s. per lb. for Indian.

CITRONELLA. — Ceylon, spot, 5s. 6d.; shipment, 5s. 1d. per lb., c.i.f.; Formosan and Chinese, 4s. 6d., in bond; shipment, 4s. 5d., c.i.f.

CLOVE.—Madagascar leaf for shipment, 5s. 8d., c.i.f.; spot, 6s. 1½d., in bond. Rectified, 10s. Distilled bud-oil, ENGLISH B.P., 26s. per lb. for 1-cwt. lots.

COD-LIVER. — B.P. in 45 gall. drum is 11s. 6d. per gall. including 30s. deposit on drum. Veterinary is from 9s. 6d. per gall. 25-stone lots. Delivered terms.

DILL. — Imported is from 34s. to 39s. per lb. spot.

GRAPEFRUIT.—Spot offers from 7s. 6d. per lb.

GERANIUM. — Bourbon, 87s. 6d. to 92s. 6d., spot.

JUNIPER. — B.P.C. is 32s. 6d. per lb. JUNIPER WOOD, from 6s.

LAVANDIN. — From 25s. to 30s. per lb. as to quality.

LAVENDER. — French from 46s. to 57s. 6d. per lb. as to quality.

LEMON.—Sicilian from 20s. to 28s.

LEMONGRASS. — Spot, 8s. 4½d. per lb.; shipment, 8s. 2d., c.i.f.

LIME. — West Indian distilled, 65s. per lb. on the spot.

NUTMEG.—East Indian B.P. oil is about 40s. per lb. English distilled, 70s.

ORANGE.—Floridan sweet oil, 4s. 6d. to 5s. 9d. per lb.; Spanish, 16s.

PALMAROSA. — Shipment, 50s. per lb., c.i.f.; spot, 54s.

PETITGRAIN. — Paraguay for shipment, 14s. 9d., c.i.f.; spot, 15s. 6d. per lb.

PEPPERMINT. — *Arvensis*: Chinese for shipment, 11s., c.i.f., spot, 11s. Brazilian for shipment, 12s., c.i.f.; spot, 11s. 9d. *Piperita*: Italian, 48s. to 60s., spot. American from 34s. per lb. as to make.

SANDALWOOD. — Mysore, spot, 108s. per lb. East Indian for shipment, 112s., c.i.f.

THYME.—From 20s. to 25s. 6d. per lb. as to test.

## UNITED STATES REPORT

NEW YORK, JULY 6: The market for CRUDE DRUGS was described as seasonally quiet with the price structure unchanged and inventories considered to be on the low side. ESSENTIAL OILS were largely steady as demand continued unabated.



## PATENTS

## COMPLETE SPECIFICATIONS ACCEPTED

From the "Official Journal (Patents)," June 10

*Cyclohexane derivatives*, Rhone-Poulenc, S.A., 999,221.

*Process for treating hair*, Dow Corning Corporation, 999,222.

*Quinoline derivatives*, Rhone-Poulenc, S.A., 999,237.

*Esterification of isophthalic acid with alkylene oxides*, Allied Chemical Corporation, 999,242.

*Method of making photographic images multilayer photographic material and for performing the same*, Lumoprint Zindler, K.G., 999,247.

*Manufacture of spirilloxanthin*, F. Hoffmann-La Roche & Co., A.G., 999,251.

*Ester and a process for the preparation*, F. Hoffmann-La Roche & Co., A.G., 999,252.

*Unsaturated esters and a process for the preparation thereof*, F. Hoffmann-La Roche & Co., A.G., 999,253.

*Unsaturated alcohol and a process for the preparation thereof*, F. Hoffmann-La Roche & Co., A.G., 999,254.

*Unsaturated alcohols and a process for the preparation thereof*, F. Hoffmann-La Roche & Co., A.G., 999,255.

*Sulphonation of fatty acids and their esters*, Henkel & Cie, G.m.b.H., 999,300.

*Substituted thioanisole*, Sandoz Patents, Ltd., 999,363.

British patent specifications relating to the above will be obtainable (price 4s. 6d. each) from the Patent Office, 23 Southampton Buildings, Chancery Lane, London, W.C.2, from July 21.

From the "Official Journal (Patents)," June 16

*Substituted tetrazaindene compounds and their uses in photography*, Kodak, Ltd., 999,381-82.

*2-Benzoyloxy-malonate acid derivatives*, Sandoz Patents, Ltd., 999,388.

*Ethers of methyl 18-epi-sesquiterpene and salts thereof and process for their manufacture*, CIBA, Ltd., 999,391.

*Ethers of the yohimbane series and process for their manufacture*, CIBA, Ltd., 999,392-93.

*Animal feed and drink preparations*, CIBA, Ltd., 999,394.

*Compounds of the yohimbane series and process for their manufacture*, CIBA, Ltd., 999,395.

*Process for the manufacture of ethers of the yohimbane series*, CIBA, Ltd., 999,396.

*Esters of the yohimbane series and process for their manufacture*, CIBA, Ltd., 999,397-98-99.

*Phosphorus-containing esters*, Farbenfabriken Bayer, A.G., 999,402.

*Substituted 2-hydroxy-benzo [A] quinolizines and a process for the manufacture thereof*, Hoffmann-La Roche & Co., A.G., 999,404.

*Electrophotographic materials*, Eastman Kodak Co., 999,405.

*Production of 1,4,5-trisubstituted pyridazones*(6), Badische Anilin & Soda-Fabrik, A.G., 999,448.

*Process for making 2,6-dialkylphenols*, General Electric Co., 999,449.

*Production of alcohols*, Imperial Chemical Industries, Ltd., 999,461.

*Veterinary preparations containing an aromatic disothiocyanate*, Farbwerke Hoechst, A.G., 999,502.

*Piston injection syringe*, Inlecta Steinach Veb., 999,527.

*Photographic flashlight apparatus*, H. Böhme, 999,535.

*Process for the manufacture of an ester of a carboxylic acid with an unsaturated alcohol*, Farbwerke Hoechst, A.G., 999,551.

*Polyoxyethylene derivatives of sucroglycerides*, Ledoga, S.p.A., 999,554.

*Process for the manufacture of compounds containing an ethionylamino group*, Farbwerke Hoechst, A.G., 999,556.

*Trihydroxamic acids*, CIBA, Ltd., 999,582.

*Pharmaceutical preparations containing trihydroxamic acids*, CIBA, Ltd., 999,583.

*Bipyridinium compounds and herbicidal compositions containing them*, Imperial Chemical Industries, Ltd., 999,585.

*Production of halogen substituted-methyl compounds*, Merck & Co., Inc., 999,586.

*Carboxylic acids alpha-substituted by at least one cyclic radical and their processes of preparation*, Lipha, Lyonnaise Industrielle Pharmaceutique, 999,589.

*α-Substituted carboxylic acid derivatives and their production*, Lipha, Lyonnaise Industrielle Pharmaceutique, 999,590.

*Process for the preparation of basically substituted phenyl-acetoneitriles*, Knoll A.G. Chemische Fabriken, 999,612.

*Methods of obtaining aluminium-ammonium-alum*, Instytut Chemii Ogólnej, 999,644.

*Hypoglycemic sulphonyl urea medicaments*, Upjohn Co., 999,710.

*Process for the manufacture of mono-(1-2-diaryl-aminoethane)-derivatives of dicarbonyl compounds*, Schering, A.G., 999,729.

*Stabilisation of ester-group containing compounds*, Farbenfabriken Bayer, A.G., 999,730.

*Methods and compositions for regulating plant growth*, Union Carbide Corporation, 999,734.

*Nematocidal compositions and compounds for use therein*, J. R. Geigy, A.G., 999,737.

*Therapeutic compositions containing estrones*, American Cyanamid Co., 999,738.

*Analgesic compositions*, Takeda Chemical Industries, Ltd., 999,739.

*Benzothiadiazoles, their preparation and use*, J. R. Geigy, A.G., 999,740.

*Penicillin*, Distillers Co., Ltd., 999,791.

*Production of antibiotic containing a cyclopentanophenanthrene nucleus and salts thereof*, K. Abildgaard (trading as Lövens Kemiske Fabrik Ved A. Kongsted), 999,794.

*Antifungal compositions*, Boots Pure Drug Co., Ltd., 999,802.

*1,2-Dihydroquinoline derivatives*, Monsanto Chemicals, Ltd., 999,806.

*Hemostatic dressings and wound coverings*, Johnson & Johnson, 999,807.

*Polyisobutylene composition*, Johns Manville Corporation, 999,831.

*Aerosol propellant formulations*, Imperial Chemical Industries, Ltd., 999,837.

*Continuous separation of an isomer mixture containing ortho-, meta- and para-dichloro-benzene and trichloro-benzene*, Farbenfabriken Bayer, A.G., 999,845.

*Toothpastes*, International Chemical Co., Ltd., 999,857.

*Substituted dimethyl ureas*, Fisons Pest Control, Ltd., 999,862.

*Dyes for photographic filter layers*, Kodak, Ltd., 999,874.

*Pesticides*, Murphy Chemical Co., Ltd., 999,876.

*Dibenzocycloheptene derivatives*, Sandoz Patents, Ltd., 999,879.

*Process for the purification of monocarboxylic acids*, Shell Internationale Research Maatschappij N.V., 999,881-82.

*Dialkylaminoalkyl esters of substituted phenoxyphenyl alkanolic acids*, Smith Kline & French Laboratories, 999,892.

*Fungicidal compounds and compositions*, Boots Pure Drug Co., 999,893.

*Organic compounds of phosphorus containing nitrogen and sulphur*, Farbenfabriken Bayer, A.G., 999,897.

*Preparation of esters*, A. Boake, Roberts & Co., Ltd., 999,947.

*Prolonged acting pharmaceutical preparations*, Koninklijke Pharmaceutische Fabrieken V/H Brocades-Scheeman & Pharmacia N.V., 999,959.

*Pesticidal compositions containing rotenone and piperonyl butoxide*, Cooper, McDougall & Robertson, Ltd., 999,960.

*Process for the preparation of 1-oximino-2-chloro-cyclo-dodecadi-5,9-ene*, Soc. Organico, S.A., 999,997.

*Process for the manufacture of unsaturated aldehydes*, F. Hoffmann-La Roche & Co., 999,999.

British patent specifications relating to the above will be obtainable (price 4s. 6d. each) from the Patent Office, 23 Southampton Buildings, Chancery Lane, London, W.C.2, from July 28.

From the "Official Journal (Patents)," June 23

*Photographic emulsions*, Kodak, Ltd., 1,000,001.

*Swabs*, Johnson & Johnson, 1,000,022.

*Prescreened photographic materials*, Eastman Kodak Co., 1,000,036.

*Photographic products*, International Polaroid Corporation, 1,000,060.

*Rearrangement of arylsilanes*, Dow Corning Corporation, 1,000,072.

*Diagnostic device for the detection and location of sites of internal anatomical abnormalities*, Diagnosto Associates, Ltd., 1,000,078.

*Method of and apparatus for packaging roll film*, Eastman Kodak Co., 1,000,124.

*Metal salts of ethylenobisdi-thiocarbamic acid*, Rohm & Haas Co., 1,000,137.

*Photographic light transmitting element*, International Polaroid Corporation, 1,000,144.

*Photographic processing apparatus*, International Polaroid Corporation, 1,000,145.

*Feeding bottles*, H. Okuyama, 1,000,182.

*Luminobenzyl derivatives and processes for their production*, J. R. Geigy, A.G., 1,000,191-192.

*Thiocyanophenyl derivatives and pest control compositions thereof*, J. R. Geigy, A.G., 1,000,199.

*N-Substituted-β-hydrox aralkylamines process for making them and therapeutic compositions containing them*, Neisler Laboratories, Inc., 1,000,207.

*N-(3-Trifluoromethylphenyl)-anthranitates*, Parke, Davis & Co., 1,000,208.

*Bis(hydroxyphenyl)thiazole thiazoles and their use as stabilisers*, J. R. Geigy, A.G., 1,000,209.

*Dialkyl hydroxyphenyl compounds and their production*, J. R. Geigy, A.G., 1,000,217.

*Collapsible tube squeezer*, C. B. Watson, 1,000,241.

*Disposable device for sterilising solutions by filtration*, R. C. Arisafi, 1,000,248.

*Photographic processes and fixing compositions*, Ilford, Ltd., 1,000,314.

*Photographic apparatus*, International Polaroid Corporation, 1,000,332.

*Developing apparatus*, Agfa, A.G., 1,000,397.

British patent specifications relating to the above will be obtainable (price 4s. 6d. each) from the Patent Office, 23 Southampton Buildings, Chancery Lane, London, W.C.2, from August 4.

## TRADE MARKS

## APPLICATIONS ADVERTISED BEFORE REGISTRATION

From the "Trade Marks Journal," June 23

*For deodorants and disinfectants* (5)  
CORGENE, 870,996, COROSAN, 870,998, by Stephenson Clarke, Ltd., London, E.C.3.

*For pharmaceutical preparations containing iron* (5)

FERROGRAD, 872,926, by Abbott Laboratories, North Chicago, Lake, Illinois, U.S.A.

*For pharmaceutical preparations and substances for human and veterinary use, all consisting of or containing sulphonamides* (5)

NUVAMIDE, 872,988, by May & Baker, Ltd., Dagenham, Essex.

*For veterinary preparations for cattle* (5)

MAMMIJECT, 873,222, by Streetly Pharmacy, Ltd., Sutton Coldfield, Warwick.

*For pharmaceutical and medicinal preparations and substances, all containing morphine* (5)

VALOMORPH, 873,306, by Wellcome Foundation, Ltd., London, N.W.1.

*For air-freshening preparations and preparations for killing flies* (5)

VERDICT, 871,148, by Northern Aerosols & Sachet Co., Ltd., Manchester, 12.

*For all goods, but not including medicated confectionery* (5)

Device with letter and words F HOUSE OF FULLER, 873,613, by Fuller Brush Co., East Hartford, Connecticut, U.S.A.

*For food for infants* (5)

CHEMOTHEUTIC KIDDIFOOD, 874,039, by British Chemotheutic Products, Ltd., Bradford, Yorks.

*For pharmaceutical preparations and substances* (5)

MEDIKEMA, 874,599, by Medikema, A.B., Tyninge, Sweden.

*For pharmaceutical and veterinary preparations and substances* (5)

BOOSTERVAC, 875,140, by Stevenson, Turner & Boyce, Ltd., Reading, Berks.

*For pharmaceutical preparations and substances for human and veterinary use* (5)

SYNCHROCEPT, 875,312, by Syntex Corporation, Panama.

*For antibiotics, antibiotic preparations and preparations containing antibiotics, all for veterinary purposes* (5)

FARMOMYCIN, 875,686, by Crookes Laboratories, Ltd., London, N.W.10.

*For laboratory and scientific instruments and apparatus* (9)

Devices, 875,809, 875,811, by Wellcome Foundation, Ltd., London, N.W.1.



## WILLS

MR. W. C. COSTELLO, M.P.S., 3 Henley Gardens, Chadwell Heath, Essex, left £4,630 (£2,118 net).

MR. G. DAVIES, M.P.S., Arfryn, Solva, Haverfordwest, Pembro, left £9,363 (£8,118 net).

MR. J. B. GILLIES, M.P.S., 20 West Town Park, Brislington, Bristol, 4, left £5,310 (£5,260 net).

MR. J. GRIFFITH, M.P.S., Tegfryn, Bryn Avenue, Colwyn Bay, Denbighshire, left £18,986 (£18,873 net).

MR. A. H. HARDING, M.P.S., 66 Harrow Drive, Hornchurch, Essex, left £31,303 (£30,067 net).

MR. J. T. HATTEN, M.P.S., 104 Glebe Street, Penarth, Glam, left £5,034 (£4,909 net).

MR. S. HILL, M.P.S., 68 Poulton Street, Kirkham, Lanes, left £35,803 (£34,022 net).

MR. R. L. HOPKINS, 46 Romilly Park, Barry, Glam, who qualified as a chemist and druggist in 1915, left £33,755 (£33,679 net).

MR. R. HUDSON, M.P.S., 76 High Street, Wickham Market, Suffolk, left £12,073 (£10,638 net).

MR. B. A. JONES, M.P.S., 34 Covert Crescent, Radcliffe-on-Trent, Nottingham, left £1,199 (£1,144 net).

MR. W. H. JONES, M.P.S., Windyridge, Brvn Avenue, Old Colwyn, Denbighshire, left £6,685 (£6,623 net).

MR. F. LIGHTFOOT, M.P.S., 6 Tunnel End, Preston Brook, Warrington, Lanes, left £2,392 (£2,345 net).

MR. L. MATTHEWS, M.P.S., Combe Grove hotel, Monkton Combe, Bath, Somerset, left £14,269 (£1,729 net).

MR. W. MOFFATT, M.P.S., 14 Westmorland Gardens, Low Fell, Gateshead, co. Durham, left £9,492 (£9,452 net).

MR. D. L. MURPHY, M.P.S., 18 Southwest Avenue, Bollington, Macclesfield, Ches, left £1,962 (£1,798 net).

MR. D. NORMAN, M.P.S., 197 Liverpool Road, Crosby, Liverpool, 23, left £22,969 (£22,850 net).

MR. T. S. NOWELL, M.P.S., Castle Bank, Straits Lane, Read, Burnley, Lanes, left £5,610 (£5,515 net).

MR. R. W. ORFORD, M.P.S., 25A Clarendon Square, Leamington Spa, Warwickshire,

MR. L. A. PARKER, M.P.S., 7 Woodland Grove, Warsop, Mansfield, Notts, left £24,386 (£23,271 net).

MR. A. J. PARKIN, M.P.S., 135 Nottingham Road, Nuthall, Nottingham, left £9,454 (£8,471 net).

MR. H. PROCTER, M.P.S., 36 Scalby Mills Road, Scarborough, Yorks, left £3,565 (£3,444 net).

MR. V. REED, F.P.S., 1 Manor Park, London, S.E.13, left £51,441 (£51,382 net). Part of the residue of his estate (on trust for his wife during widowhood) is left to the Pharmaceutical Society Convallescent Home Fund and part to the Pharmaceutical Society of Great Britain, "to found a scholarship for qualifying for the Pharmaceutical Chemist degree to be known as The Victor Reed Scholarship, to which the Pharmaceutical Society may add extra funds to increase the benefits of same."

MR. H. P. REES, M.P.S., 73 Three Butt Lane, Liverpool, left £2,607 (£2,526 net).

MR. L. ROBERTS, M.P.S., 59 Horseshoe Road, Pangbourne, Berks, left £51,825 (£51,566 net).

MR. A. V. SMART, M.P.S., 224 Tipton View Road, Chesterfield, Derbyshire, left £10,248 (£9,596 net).

MR. F. L. SMITH, M.P.S., Hilltops, Venns Lane, Hereford, left £19,019 (£18,542 net).

MR. N. V. SOWDEN, M.P.S., 73 Bowling Hall Road, Bradford, Yorks, left £3,402 (£3,259 net).

MR. A. H. SPIERS, M.P.S., 571 Welford Road, Leicester, left £18,431 (£18,368 net).

MR. W. SUMNER, F.P.S., 43 Albany Road, Pontycymmer, Glam, left £15,805 (£14,251 net).

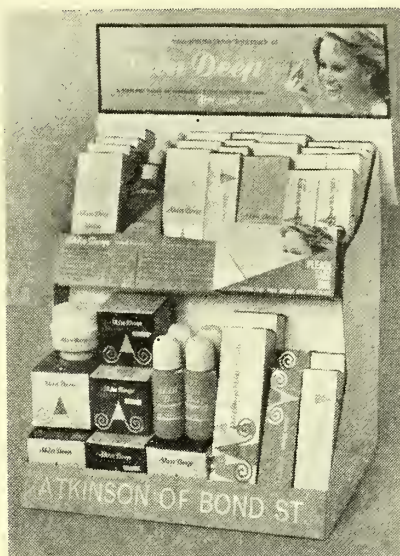
MR. J. THOMPSON, M.P.S., 5 Pierston Avenue, Blackpool, Lanes, left £10,691 (£10,552 net).

MR. D. A. TREE, M.P.S., 25 High Street, Aldershot, Hants, left £2,936 (£2,119 net).

MR. A. B. TUCKER, 1 Sidmouth Road, Honiton, Devon, who qualified as a chemist and druggist in 1906 and as a pharmaceutical chemist in 1907, left £4,508 (£4,428 net).

MR. J. WILKINSON, M.P.S., 17 Dewhurst Street, Wilden, Bradford, Yorks, left £10,716 (£10,632 net).

## PRINT AND PUBLICITY



**COMPACT:** An ingenious space-saving display dispenser issued by J. & F. Atkinson, Ltd., Bessemer Road, Welwyn Garden City, Herts. It holds their complete Skin Deep range of products and the name of each product is clearly visible. Approximate measurements are 18 x 15 x 8 ins. A space has been contrived for a "help-yourself" supply of their instructive booklet called "Basis for Beauty."

## PRESS ADVERTISING

DAE HEALTH LABORATORIES, LTD., 17 Berners Street, London, W.1: Veet odourless depilatory. In women's magazines and national Press. GORDON-MOORE, LTD., St. Swithin's, Norwich: Gordon-Moore's cosmetic tooth-paste. In newspapers and magazines (and on commercial radio).

JACKEL & CO., LTD., Shuna Place, Maryhill, Glasgow, N.W.: Living hair conditioner. In *Everywoman*, *Nova*, *Reader's Digest*, *Woman*, *Woman and Home*, *Woman's Journal* and *Woman's Own*. Protein shampoo. In *Everywoman*, *She*, *Nova*, *Woman and Home* and *Woman's Journal*.

## Catalogues and Lists

PHOTOPIA, LTD., Hempstalls Lane, Newcastle, Staffs: 1965 catalogue (pp. 96).



**"FAMILY" DISPLAY:** This permanent T.C.P. display-piece is now available from Universal Laboratories, Ltd., Sandwich, Kent, holds three 8-oz. bottles, eight 2-oz. bottles, five bars of medicated toilet soap, five tubes of ointment and four tubes of tooth-paste. The display card is interchangeable so that seasonal messages can be used.

## LOCAL OFFICERS

## PHARMACEUTICAL SOCIETY

**Bournemouth.** — *Chairman*, B. Pitts; *Vice-chairman*, M. H. Taylor; *Treasurer*, D. F. Smith; *Social Secretary*, Miss B. Lewis, 13 Mavis Road, Bournemouth, Hants; *Secretary*, J. R. Phillips, 2 Poole Hill, Bournemouth, Hants (Telephone: Bournemouth 28073).

**Burnley.** — *Chairman*, P. Harrison; *Vice-chairman*, I. Trippier; *Treasurer*, M. A. Wiltshaw; *Secretary*, J. A. Thursfield; c/o Boots, Ltd., 11 Bank Street, Rawtenstall, Lanes.

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## COMING EVENTS

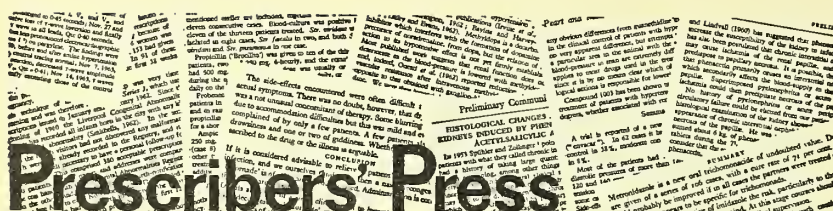
## Tuesday, July 13

LIVERPOOL CHEMISTS' ASSOCIATION AND BRANCH. PHARMACEUTICAL SOCIETY, College of Technology, Byrom Street, from 9.30 a.m. to 8 p.m. Exhibition "Medicines with Care." Until July 16. On July 17, 9.30 a.m. to 5 p.m.

## Wednesday, July 14

BOURNEMOUTH BRANCH, PHARMACEUTICAL SOCIETY. Post-graduate medical centre, Boscombe, Bournemouth, at 1 p.m. "Management of the Deaf Patient."





## What doctors are reading about developments in drugs and treatments

**ADMINISTRATION** of one dose of killed, aluminium-phosphate-adsorbed, measles vaccine three or more weeks before giving a live attenuated vaccine has been found by a Surrey general practitioner to enhance the antibody response to attenuated vaccine and to abolish adverse clinical reactions in children over three years of age. Forty-two people, including two adults, received the attenuated vaccine at intervals ranging from three weeks to eighteen months after having received either one or three doses of the killed vaccine. The three-week interval gave no less clinical benefit than did a longer interval. Antibody titres were highest in those who had received three doses of killed vaccine about a year before the live vaccine. Clinical and serological reactions to live vaccines were found to vary with age, being maximal at three to six years. It is suggested that the smaller response in older children may have been due to using the same dose with varying body weights. (*B.M.J.*, July 3, p. 13.)

THERE is an immediate need to modify the pertussis vaccines used in the United Kingdom so that they contain strains of *Bordetella pertussis* in which all three of the major antigens of that organism are represented, ac-

cording to Dr. N. W. Preston (department of bacteriology, University of Manchester). In an examination of eleven pertussis vaccines and vaccine strains in current use he found that strains of *B. pertussis* containing antigens 1 and 2 (serotype 1, 2) had been virtually eliminated and that the vaccines gave adequate protection against strains of type 1, 2, 3. However, strains of type 1, 3, which were found in both vaccinated and unvaccinated persons and constituted 85 per cent. of the strains examined, were only poorly agglutinated by antibody 1 although readily agglutinated by antibody 3. In only one of the eleven vaccine strains examined was antigen 3 found to be present. (*B.M.J.*, July 3, p. 11.)

RESULTS of a double-blind placebo study confirming the value of imipramine in Parkinsonism are reported from the Parkinson Research Unit, Kavolinska Sjukhuset, Stockholm, Sweden. Best clinical results were seen in patients under fifty. Side-effects were few and readily controlled in most patients by reducing the dose for three to five days. Once the drug began to lose effect after having established an optimum response further increase in dosage produced no further worthwhile response. (*B.M.J.*, July 3, p. 33.)

## COMMERCIAL TELEVISION

The information given in the table is of number of appearances and total screen time in seconds. Thus 7/105 means that the advertiser's announcement will, during the week covered, be screened seven times and for a total of 105 seconds.

Period July 18-24	Wales & West														Channel Is.	
PRODUCT	London	Midland	North	Scotland	Wales & West	South	North-east	Anglia	Ulster	Westward	Border	Grampian	Eireann	Channel Is.		
4711 ...	1/15	1/15	1/15	2/30	2/30	2/30	2/30	1/15	1/15	—	—	—	—	—		
Alka-Seltzer ...	7/141	5/104	6/134	5/81	5/150	7/141	8/194	2/80	9/201	5/104	7/141	6/111	5/81	5/104		
Anadin ...	3/90	6/144	5/150	4/130	1/30	4/120	2/60	4/100	4/120	1/30	2/60	2/60	—	1/30		
Arrid deodorant roll-on ...	—	—	4/120	—	—	—	—	—	—	—	—	—	—	—		
Askit powders ...	—	—	—	12/84	—	—	—	—	—	—	3/21	4/28	—	—		
Aspro ...	7/49	7/49	7/49	7/49	7/49	7/49	7/49	7/49	7/49	7/49	7/49	7/49	—	7/49		
Bien-etre splash Cologne ...	1/15	—	—	—	—	—	—	—	—	—	—	—	—	—		
Bisodol ...	—	4/28	—	—	5/35	—	—	6/42	5/35	4/28	—	—	—	—		
Bunt baby products ...	—	—	—	—	—	—	—	—	2/30	—	—	—	—	—		
Dentu-creme ...	1/30	—	1/30	1/30	2/60	1/30	1/30	1/30	1/30	1/30	1/30	1/30	—	1/30		
Dettol ...	—	—	—	3/21	—	5/111	—	3/21	3/21	—	—	—	—	—		
Freezone ...	4/51	3/67	3/90	1/30	—	—	1/30	—	—	—	—	4/28	—	—		
Go deodorant ...	3/60	3/45	3/60	3/45	4/60	4/75	4/60	3/60	—	2/30	2/30	2/30	—	4/75		
Goddess hair spray...	—	—	—	—	—	3/90	—	—	—	—	—	—	—	—		
Immac ...	5/81	3/90	2/60	3/90	4/120	2/60	3/100	4/120	1/30	1/30	2/60	2/60	—	1/30		
Lemon Nulon ...	—	—	—	—	—	—	—	1/30	—	—	—	—	—	—		
Loxene shampoo ...	5/30	1/30	1/30	1/30	1/30	1/30	1/30	1/30	1/30	1/30	2/30	1/30	—	—		
Milk of Magnesia ...	3/90	2/60	2/60	3/90	3/90	3/90	4/120	3/90	3/90	3/90	2/60	4/120	—	1/30		
tablets ...	—	—	1/15	—	—	—	—	—	—	—	—	—	—	—		
Moorland indigestion biscuits	—	3/45	—	—	—	—	—	—	—	—	—	—	—	—		
Nair ...	2/60	—	2/60	—	—	—	2/60	2/60	—	2/60	—	—	2/60	2/60		
New Quick Kwells ...	—	2/30	3/45	—	3/45	—	—	—	—	—	—	—	—	2/30		
Rinstead pastilles ...	3/45	3/45	3/45	2/30	2/30	5/75	2/30	3/45	—	1/15	1/15	2/30	—	2/60		
Schoff foot exercise sandals	—	—	1/45	—	—	1/45	—	5/75	—	—	—	—	—	—		
Signal tooth-paste ...	2/60	5/150	6/180	6/180	3/90	3/90	3/90	3/90	3/90	3/90	3/90	2/60	—	5/150		
SR tooth-paste ...	4/120	2/60	2/60	5/150	5/150	2/60	3/90	3/90	2/60	4/120	2/60	2/60	—	3/90		
Steradent ...	1/30	2/60	2/60	1/30	2/60	1/30	1/30	2/60	1/30	—	2/60	—	—	1/30		
Vaseline petroleum jelly ...	1/30	2/45	1/15	—	—	2/60	—	—	—	—	—	—	—	—		
Vitalis ...	—	2/52	—	—	—	—	—	—	—	—	—	—	—	—		
Wright's coal tar soap	—	2/30	1/15	1/15	—	1/15	1/15	—	—	1/15	—	—	—	—		

SEVANA "soapless soap" (an anionic synthetic detergent) may be tolerated in soap intolerant skin conditions, concludes Dr. J. S. Pegum (The London Hospital and Queen Elizabeth Hospital for Children) after an investigation of its use in fifty-seven patients, ranging from infants to adults, with various dermatoses. The substance was also used as a shampoo in thirty-five patients and proved satisfactory. Three of the fifty-seven cases showed intolerance. (*Practitioner*, July, p. 78.)

## CONTEMPORARY THEMES

Subjects of contributions in current medical and technical periodicals.

- ANTI-IRRITANTS. Use of, in cosmetic formulating. *J. Soc. Cos. Chem.*, May 27.
- PYRIDOXINE-3,4-DIACETATES and their use in cosmetics. *J. Soc. Cos. Chem.*, May 27.
- POLYETHYLENE-MINERAL OIL GELS. A new procedure for the preparation of. *J. Soc. Cos. Chem.*, May 27.
- PHENOTHIAZINE DERIVATIVES. Sudden death and. *J. Amer. med. Ass.*, June 21.
- HORMONES at work. *New Scientist*, July 1.
- ANTHRAX AND ANTIBIOTICS. *Vet. Rec.*, July 3.
- TETRACYCLINES. Bacteriostatic actions of some. *J. Pharm. Pharmacol.*, July.
- PHARMACOLOGY OF HALOQUINOL. Observations on the. *J. Pharm. Pharmacol.*, July.
- LACTOSE AND MAGNESIA. Some physical properties of. *J. Pharm. Pharmacol.*, July.
- CLOXACILIN. Clinical studies with. *J. Amer. med. Ass.*, June 14.
- PHOTOSENSITIVITY induced by drugs. *J. Amer. med. Ass.*, June 14.
- TO LETRIES TECHNOLOGY. Some aspects of. *J. Pharm. Sciences*, June.
- TISSUE CALCIFICATION. Drug-induced resistance to. *J. Pharm. Sciences*, June.
- MECAMYLAMINE, PEMPIDINE, and several pempidine analogues. Cardiovascular activity of. *J. Pharm. Sciences*, June.
- CATHARTICS and the sodium pump. *Nature*, June 26.



# cumulative price changes

# AMENDING C & D QUARTERLY PRICE LIST FOR JUNE 1965

<b>Bore (976 PS &amp; T)</b>						<b>Apogren (34 A &amp; H)</b>						<b>D Betalin Complex (413 Lilly)</b>					
deodorant spray						amoules						<b>Betnesol-N (518 Glaxo)</b>					
hair cream						2 mls S 22 0 — 2 9						nasal spray 15mls					
liquid shampoo						100 26 0ea — 39 0						<b>Bi-Citrol (1336 WJ&amp;C)</b>					
shaving lather						S mls 5 26 0 — 3 3						granules 80 0 20 0 11 8					
						100 31 0ea — 46 6						<b>Bien-et-re (1 Abbey)</b>					
						10 mls 5 48 0 — 6 0						splash Cologne					
						100 55 0ea — 82 6						½ litre S1 0 12 9 7 6					
<b>ine (821 McGlashan)</b>						<b>Aquacell (1553 Contactasol)</b>						½ litre 84 0 21 0 12 6					
powder single						contact lens carrying case						½ litre 132 0 33 0 19 6					
						<b>D Aqua-Net (1092 Saga) existing entry</b>						½ litre 18 Sea 4 Sea 32 6					
						<b>Aqua-Net (1524 Chembro)</b>						<b>Bio Strath (29 Alfonal)</b>					
						hair spray						vitamin tonic 18 9ea — 25 0					
						aerosol 6½oz 38 0 9 6 5 6						<b>Biotexin (518 Glaxo) all products</b>					
						13oz 61 3 15 4 8 9						<b>Birleys (131 Birleys)</b>					
						18oz 76 6 19 1 10 9						antacid powder					
						sachet refill 12 0 3 0 1 9						16 0 4 0 2 2					
						<b>Ardena (60 Arden)</b>						34 8 8 8 4 9					
						traveller II case						16 0 4 0 2 2					
						956-00 — — 30 0						<b>Bishops (132 AB)</b>					
						<b>Asahi Pentax (1027 Rank)</b>						fruit saline natural					
						camera 35 mm						100 gm 38 0 9 6 5 0					
						55 mm f2 lens						12oz 60 9 — 6 3					
						5la — — 1590 0						<b>D Bisks (175 BCP) 12oz 60 9</b>					
						55 mm fl-8 lens — — — —						<b>Blue Star (177 BDS)</b>					
						SV — — 2200 0						<b>Body Mist (105 BTD)</b>					
						case — — 97 8						roll-on and refill					
						<b>Asilone (117 BPL)</b>						<b>Bovril (152 Bovril)</b>					
						paediatric						2oz 22 2 — 2 2					
						sachets (2S) 4 6ea 1 1½ea 7 10½						4oz 40 10 — 4 0					
						<b>Astral (333 Cupal)</b>						8oz 71 6 — 7 0					
						air fresher aerosols						16oz 130 0 — 12 9					
						apple blossom						1oz — — — —					
						6oz 34 6 — — —						invalid					
						apple blossom						2oz 37 0 — 3 4					
						bouquet 8oz 38 4 — 3 11						4oz 66 0 — 5 10					
						Caribbean night 12oz 55 0 — 5 6						8oz 125 0 — 11 0					
						6oz 34 6 — — —						<b>Bravo (153 BSC)</b>					
						magnolia						toilet roll 27 8 — —					
						blossom 8oz 38 4 — 3 11						(6 doz)					
						rose petal 6oz 34 6 — — —						<b>D British Dental (177 BDS)</b>					
						8oz 38 4 — 3 11						<b>Britmarine (555 Haffenden)</b>					
						bubble pack blocks						hot water bottle					
						forest pine						Nodland 46 0 — 5 9					
						<b>Astral (509 Gibbs)</b>						<b>Brolene (971 PSMB)</b>					
						soap toilet 10 4 2 7 1 3						eye drops 15 mls 24 0 — 3 0					
						bath 15 2 3 9½ 1 10						<b>Bronnley (194 Bronnley)</b>					
						<b>Atomol (34 A &amp; H)</b>						pre-make-up					
						nasal spray 30 0 — 3 9						soap (3) 6 0					
						<b>Atrixco (1164 SSL)</b>						<b>Broxodont (1176 Squibb)</b>					
						hand care tin 409 106 2 26 0 15 6						automatic					
						<b>Ayrtton (78 AS&amp;Co)</b>						toothbrush 76 11 17 7 108 5					
						cream of calamine						<b>D Brylcreem (105 BTD)</b>					
						with benzocaine						dispenser 210cc					
						4oz 18 0 4 6 2 6						<b>Bunty (234 Cartwright)</b>					
						<b>Sundries</b>						baby pants super 15 3 — —					
						bathroom scales						shampoo					
						"Prestige" 31 0ea 3 0ea 49 6						<b>Butazone (1515 CD) †s4B</b>					
						<b>Baby Life(1499 BLP)</b>						tablets 100mgm 100 13 6ea					
						baby squares						500 65 0ea					
						muslin						1000 128 0ea					
						(12) 24 x 24in 18 6ea — 24 9						200mgm 100 26 0ea					
						(6) 9 6ea — 12 11						500 128 0ea					
						terry popular						1000 254 0ea					
						(12) 24 x 24in 23 6ea — 30 9						<b>Buttercup (415 Ellis)</b>					
						(6) 12 0ea — 16 0						syrup					
						standard (12) 30 3ea — 40 6						18 4 4 7 2 5					
						(6) 15 6ea — 21 0						26 8 6 8 3 6					
						baby teats 5 6 — 8						36 8 9 2 4 10					
						<b>Babytown (1554 AC&amp;S)</b>						<b>Cafergot (1098 Sandoz)</b>					
						fluffy puffs 10 11 — 1 4						tablets †s4B					
						muslin squares						<b>Cafergot Q (1098 Sandoz) †s4B</b>					
						24 x 24in (12) 20 4ea 27 1						Calcedium (695 TK)					
						28 x 28in (12) 25 4ea 33 9						9oz 30 0 — 3 9					
						30 x 30in (12) 30 4ea 40 5						<b>Camilatone (563 Hampshire)</b>					
						terry squares						henna cream					
						24 x 24in (12) 31 2ea 41 7						<b>Canon (I136 Silber) existing entries</b>					
						<b>Band-Aid (672 Johnson)</b>						<b>Canon (I136 Silber)</b>					
						strip dressing						cameras 35mm</					

when prescriptions call for INSULINS, supply

# WELCOME

● SOLUBLE ● LENTE ● PROTAMINE ZINC ● GLOBIN

BURROUGHS WELLCOME & CO. (*The Wellcome Foundation Ltd.*) LONDON





[illegible]



[illegible]



[illegible]



[illegible]



[illegible]



eschal (1124 Sen M)	22 6	5 7½	3 1
corn planes			
ylan Parenteral (938 PD) †s1s4A			
atoniol (252 CIBA)	25		
tablets			
de Pantene (261 Christy)	68 0	17 0	9 11
hair spray			
os (621 Horlicks)	100 54 0	—	6 9
tablets	1000 29 6ea	—	44 3
ot (786 MacDonald)			
sanitary briefs			
chic ex. large	66 4	6 7½	7 11
an (786 MacDonald) sanitary towels	6 10 11	—	1 2
size 1	12 21 0	—	2 3
2	12 24 11	—	2 8
ks (781 Lusty)			
neumatism			
tablets	50 16 0	4 0	2 4
wire (563 Hampshire)			
old cream			
ne (625 Hozene) sanitary towels			
soluble	1 21 1	—	2 3
2 23 5	—	—	2 6
h-Tan (333 Cupal)			
rosol spray or foam			
rosol spray 5oz	60 0	13 6	7 6
sil (878 Napp) ointment			
ts (1175 SPL)			
eat	handy 41	—	1 1
	(4 doz.)		
large	37 6	—	1 11½
	(2 doz.)		
kennel	52 6	—	5 6
(509 Gibbs)			
oth-paste giant	37 2	9 3½	4 11
Kosal (1336 WJ&C)			
powder 100gm	84 0	21 0	11 3
blets	60 84 0	1 0	11 3
udents (198 B&W)			
ental			
stimulators	36 11	9 2½	4 10½
ilk (509 Gibbs) shampoo			
eam magnum	29 1	7 3½	3 11
nic magnum	29 1	7 3½	3 11
roft (563 Hampshire)			
ubble bath	2 6	7½	4
ir spray No. 3	33 6	8 4½	4 6
ampoo	2 6	7½	4
lcam			
thesin (413 Lilly)			
omound cream			
ron (1091 Rybar)			
ispasmodic			
mixture 4oz	30 0	7 6	4 4½
ometrine (1098 Sandoz) †s4P			
id (208 BVV)			
uinidine sulphate			
0-2gm 100	14 8ea	—	22 0
yl (501 Geigy) †s4B			
pit (1221 Thawpit)			
ttle	24 3	—	2 9
with cleaning	24 3	—	2 9
pad	24 3	—	2 9
iril (117 BPL)			
asal spray	48 0	12 0	7 0
x (107 BH&L) tablets			
ne (1490 IAPS) †			
ills	250 22 0ea	5 6ea	—
Sweets (1559 TS)			
istributors 436 Evans)			
barley fruits,			
barley sugars,			
butter pieces,			
malted milk			
milk toffees,			
mint & butters	10 10½	1 4½	1 3
blackcurrant			
sticks	15 10	2 2	4
(6 doz)	(6 doz)		
og (1175 SPL)			
handy	36 8	—	11½
(4 doz)			
large	32 8	—	1 8½
(2 doz)			
ist (1157 5)			
freshener	27 0	—	2 11

Topnote (1157 S)			
shampoo			
lacier			
removing	4 0	1 0	7
Towle's (179 BDH)—			
chlorodyne 1oz	13 9	3 5½	2 0
1½oz	29 3	7 3½	4 3
Traka (1490 IAPS) †			
lozenges	12 15 0	4 0	2 3
	100 54 0	13 6	—
	1000 37 0ea	9 3ea	—
	80oz 52 6ea	13 1ea	—
syrup			
Tresor (726 Lancome) existing entries			
Tresor (726 Lancome)			
eaux			
parfumees	6241	—	50 0
	6242	—	84 0
	6243	—	140 0
perfume presentation			
de luxe			
diamond	62202	—	335 0
	62203	—	435 0
gold-and-white decor			
debutante	62129	—	45 0
handbag			
size	6219	—	45 0
1oz	6218	—	52 6
1oz	6211	—	84 0
1oz	6212	—	135 0
2oz	6213	—	240 0
3½oz	6214	—	360 0
soap	060	—	6 6
talc plastic	591	—	12 6
metal	590	—	12 3
D Tube-o-Dents (177 BDS)			
Uneda (821 McGlashan)			
headache			
powders	8 14 6	3 7½	2 0
	32 52 0	13 0	3
	72 118 0	29 6	3
D Urolucosil (1310 WVV)			
tablets	25		
Uromide (291 Consolidated) †s4B			
tablets	7 1ea	1 9½ea	—
Utella (1414 Strange)			
hair wavers			
and curlers	13 4	3 4	2 0
Valium (1704 Roche)			
syrup 2mgm/5mils			
Vaseline (256 CPL)			
hair cream	jar 29 1	7 3	2 6
	(2 doz)	(2 doz)	
	43 8	10 11	3 0
	(2 doz)	(2 doz)	
dispenser refill	32 9	8 2	4 6
hair tonic	36 5	9 1	2 6
	(2 doz)	(2 doz)	
	27 4	6 10	3 9
petroleum jelly			
yellow	jar 18 9	4 8	2 6
white	20 8	5 2	2 9
	37 6	9 4½	5 0
shampoo cream			
sachet	16 5	4 2	9
medicated sachet	16 5	4 2	9
D Vastarel (1123 SLL)			
(distributors 785 Macarthy)			
(distributors 1556 Farillon)			
V-Cit-K (413 Lilly) TS			
Pedipacs 125mgm sachet			
	144 50 0ea	—	6 6
	66 0	16 6	9 8
D Vetaplasme Langlebert (1336 WJ&C)			
Vibrona (466 FF)			
Vibrona (400 JD&B)			
tonic wine	10oz 79 0	—	8 6
	20oz 144 3	—	15 6
D Victory (177 BDS)			
Vinolfa (509 Gibbs)			
baby soap	9 1	2 3½	1 1
soap toilet	9 1	2 3½	1 1
bath	13 11	3 6	1 8
Vitavel (1285 Vitamins)			
folic acid tablets			
5 mgm	100 28 0	—	—
Wander (1303 Wander)			
diabetic canned			
fruits	8oz 18 0	—	2 0

Watalux (980 Photopia)			
flash unit	W15	—	36 11
X2	W63	—	58 6
Watersprite (1160 Solport)			
face cloth	G296	17 6	2 3
	G295	18 0	2 3
	G300E	18 6	2 3
Wellcome (208 BVV)			
fowl pest vaccine			
50mils	63 0	—	7 0
250mils	25 6ea	—	34 0
500mils	49 6ea	—	66 0
Wonder Set (1531 WS)			
large	40 6	9 7½	5 6
D old size			
Yalcs (752 Lenton)			
support socks			
for men	pr. 12 6ea	—	18 9
Springtime support hose			
seamed or			
seamless	pr. 19 8ea	—	29 6

### AMENDMENTS TO KEY TO SUPPLIERS

29 Alfonal = Alfonal, Ltd., Church Road, Worcester	
Park, Surrey, Derwent 3877.	
135 TB = Thomas Blake & Co. 20 Blatchford Close,	
Horsham, Sussex.	
176 BCLO = British Cod Liver Oils (Hull and	
Grimsby), Ltd., Marfleet, Hull, Yorks. Hull 75234	
249 CM = Charton Meads (Pest Control), Ltd., 21	
Station Road, Gosforth, Newcastle-on-Tyne 3. Gos-	
forth 53188.	
259 Choodler = Choodler, Ltd., Ryston End, Downham	
Market, Norfolk. Downham Market 2395.	
273 Clippa-Safe = Clippa-Safe (Hygienic Safety Har-	
ness), Ltd., Lanthwaite Road, Clifton, Nottingham.	
Nottingham 211899.	
360 Deakin = G. Deakin & Hughes, Ltd., 31 Somerset	
Street, Abertillery, Mon. Abertillery 2212.	
386 Douek = E. M. Douek & Co., Ltd., 18 Baker Street,	
London, W.1. Welbeck 1309.	
400 JD&B = Jules Duval & Beaujoys, Ltd., Great West	
Road, Isleworth, Middlesex. Isleworth 8224.	
451 F&J = Fassett, & Johnson, Ltd., Oxford Works,	
Worsley Bridge Road, London, S.E.26. Beckenham	
5007.	
503 G = Geistlich Sons, Ltd., P.O. Box 37, 33 Water-	
gate Row, Chester. Chester 20592.	
748 L&F = Lehn & Fink Products, Ltd., 21 Conduit	
Street, London, W.1. Mayfair 7397.	
817 MPS = Mayfair Photographic Supplies (London),	
Ltd., Kildare Close, Ruislip, Middlesex. Pinner 8856.	
843 ML = Miles Laboratories, Ltd., Stoke Court, Stoke	
Poges, Bucks. Farnham Common 2151	
872 Murray = A. J. Murray & Co., 57 Gilmour Street,	
Eaglesham, Glasgow. Eaglesham 419.	
887 New Era = New Era Laboratories, Ltd., 87 Saffron	
Hill, London, E.C.1. Chancery 1481.	
1105 Saville = Saville Perfumery, Ltd., Parkville House,	
Bridge Street, Pinner, Middlesex. Pinner 5868.	
1199 Sunbeam = Sunbeam Electric, Ltd., Radnor House,	
London Road, London S.W.16. Pollards 8671.	
1500 MM&F = Minnesota Mining & Manufacturing	
Co., Ltd., 3M House, Wigmore Street, London, W.1.	
Hunter 5522.	
1549 Matthews = Matthews Laboratories, Ltd., Glan-	
severn Hall, Berriew, Montgomerys. Berriew 205.	
1553 Contactasol = Contactasol, Ltd., 70 Wigmore	
Street, London, W.1. Hunter 4861.	
1554 AC&S = Alexander Carus & Sons, Ltd.,	
Hoddlesden Mills, Darwen, Lancs., Darwen 1383.	
1555 Corsectic = Corsectic, Ltd., 6 Cadogan Lane,	
London, S.W.1. Belgravia 8306.	
1556 Farillon = Farillon, Ltd., Chesham House, Chesham	
Close, Romford, Essex. Romford 46021.	
1557 PWL = Pains-Wessex, Ltd., High Port Salisbury,	
Wilts. Middle Woodford 282.	
1558 MCL = Mayfair Chemicals Ltd., 40 Shepherd	
Street, London, W.1. Grosvenor 3184.	
1559 TS = Tonic Sweets, The Toffery Laburnum Avenue,	
Whitley Bay. Whitley Bay 20927.	
1560 JSPD = Jean Sorelle Ltd. (Promedico Division),	
21 Turle Road, London, N.4. Archway 6727.	
1561 MD = Michael Denham, Ltd., Catherine Wheel	
Road, Brentford, Middlesex. Isleworth 8920.	

## THIS WEEK'S CHANGES

Prices are given in the sequence: Trade price per doz./purchase tax per doz./retail price (bold if maintained), thus:—17s 11d/4s 3d/2s 3d. A dash — In any column indicates that the manufacturer has provided no figure appropriate to that column.

1113 S&B)			
de Cologne			
original shape			
No. 11 401 2	100 3½	58 6	
No. 812 288 0	72 0	42 0	
No. 9119 185 2	46 3½	27 0	
No. 815 120 0	30 0	17 6	
No. 816 65 2	16 3½	9 6	
No. 15W 133 9	33 5	19 6	
No. 16W 78 10	19 8½	11 6	
trial size			
No. 828 25 9	6 5	3 9	
atch shape			
No. 843 37 9	9 5	5 6	

A = Price advanced  
R = Price reduced  
• = New entry  
D = Delete  
C = Correction

wicker	No. 1 651 5	162 10	95 0
	No. 2 360 0	90 0	52 6
	No. 3 202 3	50 7	29 6
flat shape in			
carton			
No. 127/T	51 5	12 10	7 6
flat shape in			
wicker			
No. 127/W	56 7	14 2	8 3
decanter			
No. 554/219	5	54 10	32 0
spray set			
No. 782 121	9	30 5	17 9



[illegible]

## AMENDMENTS AND ADDITION TO KEY TO SUPPLIERS

1242 Toni = **Toni Co.**, Hawley Lane, Farnborough, Hants.  
Farnborough 2011.  
1515 CD = **Chelsea Drug & Chemical Co.**,  
310 Old Brompton Road, London, S.W.5. Frodo  
4321.

**Birmingham • Bournemouth      Leeds • Liverpool • Cardiff • Bristol**

# ORRIDGE & CO.

**CHEMISTS' STOCKTAKERS**  
184 STRAND LONDON WC2. TEMPLE BAR 9212/3